



Smart Computing®

& CONSUMER ELECTRONICS

In Plain English

smartcomputing.com

February
2009
Vol. 20 Iss. 2
\$5.99 U.S.
\$7.99 Canada

SOLVE

Windows Problems



Free Your PC From Common Glitches

Windows Vista

Windows Update p.36

What To Do When

You Want To Dispose
Of Old Electronics p.80



How To Install A Keyboard

Fresh Keys For
Your Fingers p.85

Troubleshooting

Fix Problems With Motherboards p.82



Do It Yourself Project

Archive Your Email p.42

Review:

Adobe Photoshop
Elements p.29



Upconvert DVD Players

High Quality, Low Prices p.39





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Solve Windows Problems



54 Troubleshooting Windows

Put Your PC In Drydock

56 Pick Up The Pieces

Solve Tough Windows Problems

60 Browsing For A Solution?

Solve Problems With Internet Explorer

63 Don't Shoot The Messenger

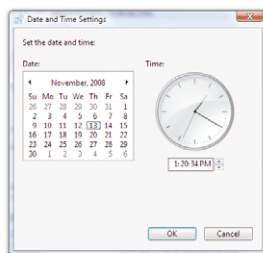
Solve Email Problems

66 Windows Media Mayhem

Solve Problems With Media Player & Media Center

69 Rough Around The Edges

Solve Problems With Peripherals



News & Notes

7 Tech News & Notes

12 News From The Help Desk: Our Most Common Tech Calls

We tell you the most common problems we're hearing about each month and provide straightforward solutions for each one.

20 Windows Glossary

Reviews

21 Tech Diaries

Our *Smart Computing* columnists spent some quality time with computer and computer-related hardware and software. Find out what they liked and disliked about their choices.

21 Tara Simmons: Canon CanoScan 5600F, Epson Perfection V500

22 Blaine Flamig: Aluratek USB Internet Radio Jukebox

23 Jennifer Johnson: YMAX magicJack

24 Marty Sems: Corsair Flash Voyager, CyberLink DVD Suite 7 Ultra

25 Head-To-Head: Password Managers

We review the latest in password protection from Animabilis, CyberScrub, Large Software, Novosoft, and Siber Systems.

28 Software Reviews

28 A Suite Alternative
OpenOffice.org 3

29 Block Unwanted Email
BullGuard Spamfilter

29 Make The Most Of Photos
Photoshop Elements 7

30 Personal Finance Software
Quicken Home & Business 2009

31 Do-It-Yourself Greeting Cards
Hallmark Card Studio 2009 Deluxe

31 Research Materials On Your PC
Encyclopædia Britannica
2009 Deluxe

Windows Central

32 Windows News, Views & Tips

Vista SP2 In The Works

34 Windows XP: Photo Story 3

Put Your Pictures In A Slideshow



36 Windows Vista: Windows Update

Patch Your Operating System



Computers & Electronics

38 DTV Deadline

Are You Ready For The Digital Conversion?

39 Leverage Your Assets

Upconvert DVD Players



42 DIY Project: Archive Your Emails

45 Readers' Tips

Our readers win very cool (OK, moderately cool) *Smart Computing* T-shirts by sharing great ways to solve problems and accomplish PC-related tasks.

46 A Slice Of Apple: Mac Attacks!

Smart Computing columnist—and Mac guru—Seth Colaner provides tips, tricks, and commentary for the Mac fanatics among us.

Plugged In

47 Web Tips

48 Find It Online

50 eMusic To The Ears

Independent & Inexpensive Music Downloads

52 Mr. Modem's Desktop:

Tempting Time-Wasters

In which Mr. Modem, author of several books—none of which has won the Pulitzer Prize—and co-host of the weekly “Gutsy Geeks” radio show, unveils your top online game submissions.



Tidbits

78 Flash Memory Cards

94 Ovation

Digital Innovations SkipDR Premier

T-Mobile G1

Verbatim LightScribe DVD+R DL 8X

ZAGG InvisibleSHIELD



SkipDR
Premier

Tech Support

80 What To Do When You Want To Dispose Of Old Electronics

Finding a service that will reuse your old electronics is a snap. We highlight some of the best technology recycling options.

82 How To Fix Common Problems With Motherboards

85 How To Install A Keyboard

88 Fast Fixes

89 Q&A

You have questions. We have answers. The *Smart Computing* staff responds to your queries.

91 FAQs

Answers to users' most common questions about print servers.

92 Action Editor

Can't seem to get a response from a vendor or manufacturer? If you need help, we're here for you.

93 Tales From The Trenches: Saving The Wireless Day

Real-world tech support advice from PC guru Gregory Anderson. This month, he searches for a signal.

Quick Studies

72 Corel Paint Shop Pro Photo X2

Use Screen Capture

73 Excel 2007

Troubleshooting File Management

74 Online

Share Your Location With Fire Eagle

75 Browsers

Keep Up-To-Date With RSS Feeds

76 PowerPoint 2007

Troubleshooting Sloppy Slides

77 Word 2007

Understanding Line Spacing

Smart Solutions Advertisements

- 14 Comodo Internet Security Pro**
Internet Security For Non-Technical Users
- 15 Diginonymous Covert Surfer**
The Internet Freedom Tool
- 16 Eye-Fi Share**
World's First Wireless, Web Sharing SD Memory Card
- 17 F-Secure Internet Security 2009**
Comprehensive, Easy-To-Use Security
- 18 GhostSurf Platinum**
Protect Your Identity
- 19 Orbita Mouse**
Navigate Your Digital World With Ease

February Web-Only Articles

Tech Support

Examining Errors
We provide solutions for common error messages.

Quick Studies

Email

Cure Gmail Login Woes

Personal Finance

Quicken's Planning Tools

Security

Destroy Data For Good

Quick Tips

Consumer Electronics

We tell you what you really need to know about various types of consumer electronics products. This month, we cover:

Flash Drives
Telephones
Digital TV Tuners

Editor's Note

When I was a kid, a friend taught me a well-known joke, and I've been "entertaining" people with it ever since. This won't take long, and if you've heard this one before, don't spoil it for everyone else:

My washing machine broke down the other day, and I spent hours trying to get it running again. Finally, I gave up and called a repair person.

Upon arriving, he pulled a hammer from his toolbox and tapped the washer gently. The machine sprang to life instantly and hummed along as though it had never stopped. The repair person promptly wrote me a bill.

"Three hundred dollars," I gasped. "But all you did was hit the machine!"

The repair person pointed to the bill's Services Rendered section, which read:

Hitting the washer: \$2

Knowing where to hit the washer: \$298

And there you have it. Why bring my formidable joke-telling skills to bear this month? Because fixing your computer's many glitches is so similar.

The steps to solving most Windows problems require little effort. A couple mouse clicks here, a few keystrokes there, and Windows is back to its old self—if you know where to click and what to type. On the other hand, if you try to guess your way to the solution, you'll probably spend a few hours troubleshooting.

To spare you the slow route to a healthy operating system, we compiled some common Windows problems, including those the SmartPeople Computer Support team often encounters. Naturally, we offer a solution for each glitch.

By the way, I know there are many versions of that joke floating around. When you fix that pesky problem with your email software, send me your version at joshua@smartcomputing.com and we'll compare notes.

Joshua B. Gulick

Joshua Gulick

Smart Computing
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Sandhills
Publishing

Product

Coverage Inquiries

products@smartcomputing.com
(800) 247-4880
131 West Grand Drive
Lincoln, NE 68521

Customer Service

(For questions about your subscription or to place an order or change an address.)
customer-service@smartcomputing.com
(800) 733-3809
FAX: (402) 479-2193
Smart Computing
P.O. Box 85380
Lincoln, NE 68501-5380

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DESKTOPS & LAPTOPS

HP Gets Touchy With Latest Notebook

Most mobile-minded consumers have become expert navigators of cramped notebook keyboards and touchpads, but that doesn't mean they no longer appreciate more sensible input methods. HP (www.hp.com) is now catering to the need for more efficient notebook interaction, as shown by its new multitouch-capable tx2.

The HP TouchSmart tx2 notebook is designed for mobile users who need more intuitive control over their content, particularly when dealing with multimedia files. HP's enhanced MediaSmart digital entertainment software suite lets tx2 users simply touch the screen to easily select, organize, and manipulate digital content such as photos, music files, video files, and Web content.

The "multitouch" feature doesn't reference its multiple input methods, but instead the tx2's ability to recognize a touch by more than one finger at the same time. In other words, users can touch two separate points on the screen, and the tx2 will sense both. The tx2 also supports touch gestures to streamline common tasks, and a digital pen that's stored in the tx2's base can be used to draw or take notes on the screen.

The tx2 has a convertible design, meaning the display can be twisted to almost any angle, including flat on top of the keyboard so that the notebook can be used as a true tablet. An on-display launch button



In addition to its rotating display, the HP TouchSmart tx2 notebook features a touchscreen that lets users easily work with multimedia content such as photos and music and video files.

allows the tx2's screen to be rotated into slate mode, and other launch buttons are available for the MediaSmart software and for Windows Vista Mobility Center to retrieve battery, volume, wireless, and display data.

The 4.65-pound notebook has a 12.1-inch diagonal screen, a color-matched keyboard and touchpad, AMD Turion 64 X2 dual-core mobile processor, ATI Radeon HD (high-definition) graphics, integrated low-light VGA (Video Graphics Array) Web cam with microphone, and SRS (Sound Retrieval System) sound. The tx2 base configuration is

\$1,149.99 and includes Windows Vista Home Premium, a 2.1GHz processor, 3GB of DDR2 (double-data rate 2) RAM, a 250GB SATA (Serial Advanced Technology Attachment) hard drive, Wireless-G capability, an 8X DVD/CD burner, and a 6-cell lithium-ion battery.

There are plenty of optional components and upgrades, including a fingerprint reader (\$25) to log on to the notebook and password-protected sites, and the HP tx Series Notebook Stand (\$49.99), which holds the notebook in an ideal position for touchscreen interactivity. ■

STORAGE

Photo Uploading Made Über-Easy

Transferring photos from a digital camera to a computer is generally a painless affair—simply pull out the memory card and plug it into a card reader attached to the computer. But what if a card reader isn't available? Or what if you simply want to skip that step altogether? An innovative product from Lexar helps bridge that gap between cameras and computers.

The Lexar Shoot-n-Sync Wi-Fi Memory Card (\$117.99; www.lexar.com) is a 2GB SD (Secure Digital) card with built-in wireless technology. The user must complete a one-time setup with the Eye-Fi online service, after which the Shoot-n-Sync card will automatically upload photos from the digital camera to the user's computer (and to the Web, if desired) whenever the camera is in range of the user's wireless network. The photos can be uploaded to photo-sharing sites, such as Flickr, Picasa, Facebook, or TypePad.

If you find yourself snapping plenty of photos but never having the time to share them, this product can get your sharing in gear. The card works with all SD-compatible digital cameras and includes a USB card reader for the initial configuration. **I**



The Shoot-n-Sync Wi-Fi Memory Card not only includes plenty of storage but also integrated wireless technology that automatically uploads your pictures to a computer or online photo-sharing sites.

DISPLAYS

Who Needs A Wooden Photo Frame?

Printing your digital photos to place in traditional frames can get expensive in a hurry, especially if you like to rotate the photos often. But a cost-effective alternative is a digital photo frame, which melds a compact display with flexible features for showing pictures. ViewSonic (www.viewsonic.com) has released two new 8-inch models to the market.

The DPG801BK and DPG807BK are both available at an estimated street price of \$129 and allow pictures to be uploaded to them via a thumb drive, memory card, or USB cable. Each includes 512MB of internal memory, and photos can be displayed individually or as a slideshow. The slideshow mode includes transition effects and audio, and parts of individual photos can be highlighted with a zoom feature.

Both models feature 800 x 600 resolution, 4:3 aspect ratio, and 500:1 contrast ratio and support JPEG (Joint Photographic Experts Group) and BMP formats, as well as Motion JPEG. The DPG807BK can also support MPEG-1 (Moving Picture Experts Group) and MPEG-4 formats. The frames feature buttons that illuminate when touched

This ViewSonic digital photo frame features control buttons that disappear when not in use, enabling the device to appear as it should—as a picture frame.



for selecting photos, slideshows, movies, or music. On the more practical side, the frames include clock, alarm, and calendar functions. **I**

PRINTERS & PERIPHERALS

The Power Of Color In Your Hands

Tired of watching your kids—or perhaps your parents—using only two fingers to type? If you’ve tried traditional typing tutorials without success, perhaps it’s time for a strategy that’s more visual.

The Keyright Look & Learn Keyboard (\$39.95; www.keyright.com) is a color-coded USB keyboard designed to replace a standard PC keyboard. Although this keyboard uses the same QWERTY key layout as other keyboards, it uses color to associate keys with fingers. For example, the right-hand pinky finger uses the keyboard’s pink keys, while the left-hand pinky uses the red keys, and so on.

The keyboard can operate without software by matching the fingers with the appropriate colored keys. The Look & Learn does include tutor software that

features a learning method designed by psychologists, trainers, and consultants. In addition, an audio feedback function announces words and sentences as the user types, helping to boost word power, vocabulary, and pronunciation abilities.

At first glance, the Look & Learn might resemble a run-of-the-mill gimmick, but Keyright has performed boatloads of research supporting the device’s color-association method and its ability to speed learning. For more on this research, visit the company’s Web site. **I**



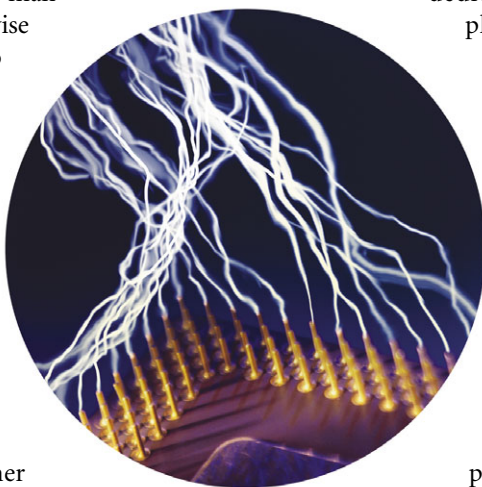
The Keyright Look & Learn looks as though someone spilled a rainbow on a keyboard, but the peripheral uses color association to quickly teach a user how to type.

CPUs, CHIPS & CARDS

Chips Could Lend Helping Hand

The emergence of the netbook—or the tiny notebook—is sending component manufacturers to the drawing board to devise ways to create ever-smaller parts. So why is Quartics (www.quartics.com) looking to add another component to the device?

The company has developed a chip that works in tandem with a netbook’s existing processor and graphics circuitry to boost video quality and help prolong battery life. According to Quartics, consumers have finally reached the point where Internet bandwidth can support a wide range of rich multimedia. However, they now face another problem: incompatibility of media files and players.



This problem is compounded by the need for dedicated hardware and specific software players to decode various compression standards, as well as by the horsepower necessary to perform that decoding. However, the company claims the Quartic Media Coprocessor can significantly boost a computer’s processing capability to handle proprietary and standard media formats so that they can be converted to any format, viewing size, and resolution—in real time and using low power.

Quartics is working to lower the price of its chip, although the company has said manufacturers can offset the price of the Quartics chip by using less-expensive processors or graphics chips. **I**

USB 3.0 Just Around The Corner

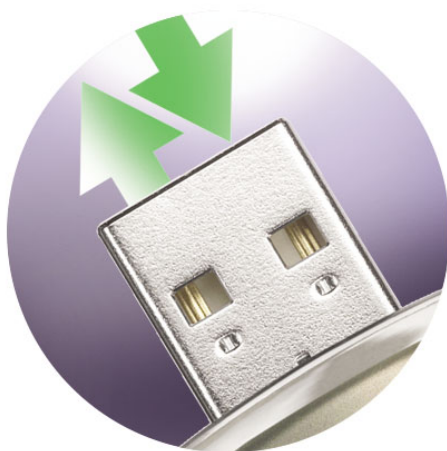
If you're still using a computer that has USB 1.1 ports, you'll soon be really behind the times. The USB 3.0 Promoter Group has announced that the USB 3.0 specification is officially completed, paving the road for manufacturers to begin releasing USB 3.0 devices.

Known as SuperSpeed USB, the new specification delivers speeds at up to 10 times faster than USB 2.0 with better power efficiency. Whereas the USB 2.0 specification supports data rates of up to 480Mbps (megabits per second), the new specification supports rates of up to 5Gbps (gigabits per second). Further, USB 3.0 will include power management features that allow devices to idle, sleep, and suspend.

Because the new specification adds five new lines inside the

cables, the new cables will be thicker than existing USB cables, and the connectors will also look a bit different (although they will be backward-compatible with USB 2.0). Thanks to the new lines, USB 3.0 will be able to read and write simultaneously from portable storage devices. Further, because the cables will carry more power, they'll be able to charge portable devices more quickly, and they'll also allow more than four devices to run from one hub.

Commercial USB 3.0 controllers are expected to appear in the second half of this year, while consumer devices should begin appearing in 2010. According to the USB 3.0 Promoter Group, the first devices should include flash drives, external hard drives, digital music players, and digital cameras. ■



PROBLEM-SOLVER: TROUBLESHOOTING THE NEWS

My burned audio CDs won't play in anything other than my computer's optical drive.

In some cases, this can signal a failing optical drive. If you have a spare drive, try swapping it with the existing drive and try again. If that doesn't solve the problem (or if you don't have a spare drive), try removing the UpperFilters and LowerFilters Registry keys. You can find instructions at support.microsoft.com/kb/314060.

My monitor won't turn off after a set amount of time.

If you've configured your monitor to shut off (or go to "sleep") after a

certain period of time in Power Options but it doesn't turn off, try updating your graphics card drivers. Also, beware that some programs, such as torrent clients, can prevent the monitor from sleeping, so you can try turning off programs or checking program settings to prevent the interference.

My Microsoft mouse double-clicks when it's supposed to single-click.

This often indicates a failing mouse, and the easiest method to solve the problem is to replace the mouse. However, the problem may be due to corrupted mouse drivers. Microsoft suggests removing and reinstalling the

current drivers via the Control Panel's Add Or Remove Programs tool. If this doesn't fix the problem, visit support.microsoft.com and search for article KB266738 for additional causes and solutions to this problem.

Why is my system constantly re-booting?

If you've ruled out the power supply unit, memory, and expansion cards as possible culprits, examine your motherboard's capacitors (cylindrical pieces that resemble batteries). The tops of the caps should be flat, but if you see any that are bulging—or even leaking—your motherboard needs to be replaced. ■

GSMA: Let's Get Mobile Payments Moving, Folks

As the evolution of smartphones and other mobile devices continues to impress us with stunning innovation, there surprisingly remains plenty of room for progress. One area that has yet to see significant growth is mobile payment services, but recently the GSMA (the global trade group for the mobile industry) called for manufacturers to get moving with mobile payment functionality.

"There is no doubt that there is a huge latent demand for a large variety of mobile transaction services, of which there is universal interest in proximity payments, as trials across the world have already shown," says GSMA CEO Rob Conway. "We are committed to ensuring that mobile payment services are delivered as efficiently and cost-effectively as possible. But this will require device manufacturers to make sure that the vast majority of commercially available handsets incorporate the Single Wire Protocol and Near Field Communications features as standard."

The Single Wire Protocol standard serves as the interface between the



UICC (Universal Integrated Circuit Card, or SIM [Subscriber Identity Module] card) and the embedded NFC (Near Field Communication) chipsets that exist within mobile devices. In turn, the NFC chip can communicate with contactless readers to allow mobile payments using credit or debit accounts.

With a mobile payment system, consumers could pay for goods and services at shops, restaurants, train stations, and other locations by

simply allowing their mobile phones to communicate securely with a payment device. If this sounds too good—and too convenient—to be true, it's not.

Eight countries (including the United States) and nine mobile operators already have trials underway, and more pilots are planned in 14 countries by 15 mobile operators.

Furthermore, initial feedback from early trials looks positive. A trial of more than 200 users in Taiwan found that 90% of people felt positive about the new service; 80% say they believe the service was sufficiently secure; and 40% would switch their monthly spending to a mobile credit card service.

Juniper Research estimates that by 2013, one in five phones shipped will include NFC capability and that the gross transaction value of payments made by NFC contactless technology for purchases such as refreshments, tickets, and food will exceed \$75 billion by 2013. The research company expects a limited number of NFC devices to be shipped this year, but they will begin ramping up more drastically in 2010. ■

DULY QUOTED

"They can hire smart guys, hire a lot of people, blah dee blah dee blah, but you know they start out way behind, in a certain sense."

—Microsoft CEO Steve Ballmer comments at a conference about Google and its entry into the mobile phone operating system market with its Android OS.

Source: *Seattle Post-Intelligencer*

News From The Help Desk

Our Most Common Tech Calls

COMPILED BY SETH COLANER

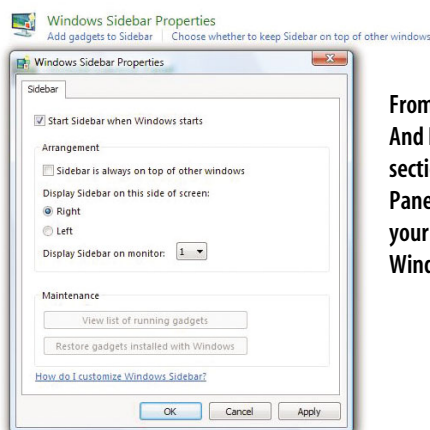
Each month, we receive numerous technical support calls and email messages. Some computer problems are fairly common, and we find that many callers struggle to resolve the same issues. In this article, we cover some of the most common or timely tech support questions and provide our solution for each of them.

Q All my sidebar gadgets in Windows Vista have vanished. How can I get them back?

A The Windows Sidebar contains all those gadgets. Usually, the Windows Sidebar runs at startup, but, for whatever reason, yours no longer does. All you need to do is re-enable it. Click Start, Control Panel, and Appearance And Personalization. Click Windows Sidebar Properties to bring up the Windows Sidebar Properties window. Check the box next to Start Sidebar When Windows Starts.

If you like, you can also alter the appearance of the Windows Sidebar from this dialog box, including placing it on the left or right of the screen. When you've made your selections, click Apply and then click OK to close the window.

Note that under the Windows Sidebar Properties link in the Control Panel, you can click Add Gadgets To Sidebar if you want to add more gadgets.



From the Appearance And Personalization section of Control Panel, you can set your preferences for Windows Sidebar.

Q What is the best way to send a large file (or several files) via email?

A The No. 1 factor to consider when sending files to people is that every ISP (Internet service provider) and email service allows varying sizes of attachments. The ISP is the company that provides your Internet service, and the

email service is the program you use to send and receive email, such as Microsoft Outlook or Web-based email such as Yahoo! or Gmail.

What this means for you (the sender) is that just because you're able to attach a ton of photos doesn't mean that your friend (the recipient) has an email service and ISP that will accept an email with all of them attached. For example, say you're using free Yahoo! email, which allows you to attach and send up to 10MB of files, but the person receiving your email uses an email service that can only accept attachments up to 8MB. The email won't go through to the intended recipient if your email is too large.

What you can do instead is compress large files before you attach them. To compress a file or folder, right-click it, point to Send To, and select Compressed (Zipped) Folder. The total size will be significantly smaller, which will both take a shorter amount of time for you to attach to an email and will help ensure that your intended recipient actually receives the attachment. The recipient can then download and easily extract the file or files. This is also an efficient way to send multiple files, as you can put them all in a folder, compress the folder, and send the whole thing as a single attachment.

Q I use public computers at places such as the university I attend and the public library. Is it safe to use these computers for things such as online banking? Will I be able to hide my tracks so people can't see the sites I visited?

A In a word, no, it's not safe to use public computers for anything sensitive such as online banking. In fact, it's not even wise to use a public computer for anything that requires a username or password. Data thieves have been known to install keyloggers (malware that records keystrokes in order to steal passwords and the like) on public machines.

One way around that issue is to use a password manager to store all your passwords on a USB flash drive. That way, you can insert the thumb drive and input your passwords without having to type them in, thus thwarting the keylogger. Just don't forget to take the flash drive with you when you're done.

And although you can delete your browsing history by pressing CTRL-H in most browsers and deleting any or all entries, you can't completely erase your tracks. This would thwart a casual snooper, but a pro could still find out what sites you visited.

Unless you're using your own computer on a secure wired or wireless network, you should generally avoid visiting any sites that require you to log in.

Q I'm buying a new computer, and I'm considering a 64-bit Windows system. What are the pros and cons of 32-bit vs. 64-bit systems?

A It depends on what you're going to be doing on your new computer. Windows 64-bit systems are designed for especially memory-intensive applications such as photo- and video-editing and professional applications such as CAD (computer-aided design). If you're just looking for a fast computer on which to conduct typical computing such as Web browsing, email, streaming music, and word processing, you're probably not a candidate for a 64-bit system.

There's nothing at all wrong with a 32-bit system. It's what the majority of Windows users currently have, and one with a good processor and 2GB of memory is plenty fast for typical computing.

There is also nothing wrong with getting a 64-bit system to take advantage of the extra speed, but before springing for one, consider the downside. A 64-bit system requires a 64-bit version of Windows Vista, and installation requires a completely fresh install instead of a simple upgrade from an existing Windows operating system. (Of course, that wouldn't be a problem with a new computer.) Further, all of your hardware and peripherals—printer, keyboard, graphics card, and so on—need to be 64-bit compatible. Some of your 32-bit software won't work on a 64-bit system (although some will), so you may find that you have to purchase new software.

In short, unless you need the increased power necessitated by a professional application, stick with a 32-bit system for now. Of course, if your heart is set on a 64-bit system, consider purchasing a Mac.

Q What is the best way to store and back up all my files in a portable format? Are flash drives OK to use?

A Without a doubt, an external hard drive is your best option. External hard drives offer a huge range of storage capacities, from 20GB up to 2TB (terabytes) and have convenient USB or FireWire interfaces to connect to your computer. If you can afford it, spring for an SSD (solid-state drive), as they have no moving parts and are therefore less likely to become damaged during travel. They're also smaller than typical external hard drives and can fit in a pants pocket.

USB flash drives, also known as thumb drives, are wonderful tools, but they were never designed for permanent storage. True, they're as portable as anything can be, being about the size of an adult's thumb (hence the nickname "thumb drive"), but they lack storage capacity. Even the largest thumb drives you can commonly find are only up to 16GB or 32GB. And though it's true that USB flash drives

Feature Package Topics

Each *Smart Computing* issue includes tips, reviews, and information about a variety of topics. However, each issue also has a featured group of articles about a selected topic. Below is a list of the Feature Packages from the previous year. As a *Smart Computing* subscriber, you have access to all of our archived articles at www.smartcomputing.com.

February 2008:	Get More Out Of Your PC: Here's What You Can Do!
March 2008:	Solve Common PC Problems: Fix It Yourself Step-By-Step!
April 2008:	The Perfect Home Network: A Step-By-Step Guide
May 2008:	Protect Your PC & Your Privacy: Block Intruders & Malware
June 2008:	Go Wireless: Share Audio, Video & Data Without Cable Clutter
July 2008:	Clean Out Your PC: Preventive Maintenance
August 2008:	Troubleshoot Software: Get Rid Of Glitches
September 2008:	Do It Yourself: Notebook Repair
October 2008:	Boost Your PC's Performance: Optimize Windows & Upgrade Hardware
November 2008:	Reinstall Windows: Breathe New Life Into Your PC
December 2008:	Holiday Gift Guide
January 2008:	Did You Really Back Up?

have been known to survive a great deal of punishment, they have a bad habit of becoming corrupted and are especially vulnerable to damage from static electricity. Use thumb drives for temporary storage only. ■



For portable backup storage, external hard drives are relatively inexpensive and offer high storage capacity.



Comodo Internet Security Pro | \$39.00 | www.personalfirewall.comodo.com/smart

Internet Security for Non-Technical Users

Comodo is famous worldwide for its award-winning firewall and antivirus software.

Until now, installing the software has required a computer proficiency that might discourage PC users from taking advantage of its powerful protection.

Now, even someone who has just taken their first computer out of the box can immediately enjoy superior PC security.

As soon as the computer is connected to the Internet, the PC user can subscribe to CIS Pro.

With CIS Pro, a Comodo security expert installs all the necessary software over the Internet.

How it works

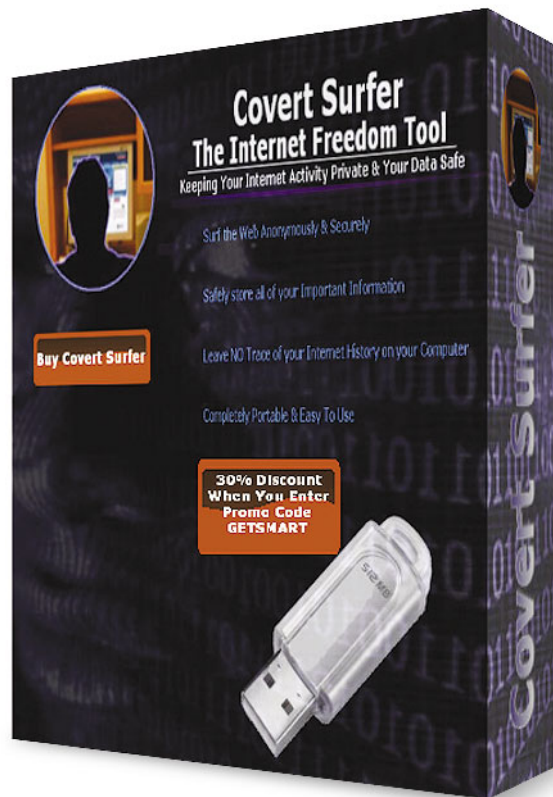
With Comodo Internet Security (CIS) Pro, Comodo's security experts install the firewall and antivirus software online. Up to four times during the subscription year, Comodo's security experts will remove malware, or simply improve the computer's performance, all online.

TrustConnect, included in CIS Pro, protects PC users who use wireless Internet. If connections are not secure, other people can read the data transmitted. TrustConnect secures data transmissions, both on wireless home routers and on public Wi-Fi connections.

Features & Benefits

- Antivirus software—scans computer and removes viruses
- Defense+ proactive security--specifically protects your critical operating system files
- 24-7 live chat support—includes installation, virus removal and PC tune-ups (4 live chat sessions included, plus installation)
- Award-winning firewall
- Try it free for 30 days

C.O.M.O.D.O.
Creating Trust Online™



Diginonymous Covert Surfer | \$14.99 per month | www.covertsurfer.com

Covert Surfer The Internet Freedom Tool

Besides providing secure anonymous internet surfing, and wireless security, Covert Surfer erases Internet history, cookies, and cached files that are left on your computer. Covert Surfer reaches into your computer's registry keys and eliminates any trace of your presence on that computer.

How It Works

Covert Surfer protects your computer by changing your IP Address. It also uses National Institute of Standards and Technology (NIST)-approved 256-Bit AES packet encryption to browse the Internet (including wireless) securely. People using packet-sniffers, ISP's or

other individuals who attempt to pry into your computer can't observe what websites you are browsing, emails you are reading, or even your actual location.

Features & Benefits

- Secure and anonymous Web surfing.
- Wireless protection and complete Internet security.
- Password-protect your private files using NIST-approved 256-bit AES file/folder encryption.
- File shredding: Permanently destroy files beyond forensic technology.
- Clean the registry and browser cookies and history.

- Complete Portability – Using A USB Drive Take Covert Surfer With You On-The-Go.
- Visit www.covertsurfer.com and start browsing the web anonymously instantly for only \$14.99 per month.
- To receive a 30% discount and get Covert Surfer for as low as \$9.99 per month use the **promo code: GETSMART** and download Covert Surfer by 02/28/2009.



Covert Surfer
The Internet Freedom Tool



Eye-Fi Share | \$99.99 | (877) 873-9334 | www.eye.fi

World's First Wireless, Web sharing SD Memory Card

The Eye-Fi Share is a wireless memory card that automatically uploads your photos from camera to your computer and favorite photo sharing Web site—no cords or cables needed. Simply turn on your camera when you get home and your photos will wirelessly upload through your Wi-Fi network.

How It Works

Eye-Fi works with any digital camera that accepts an SD memory card; just swap your current card with the Eye-Fi Share to transform your camera into a “wireless” one. Eye-Fi Share users can also upgrade their cards to add Wi-Fi hotspot access and geotagging capability

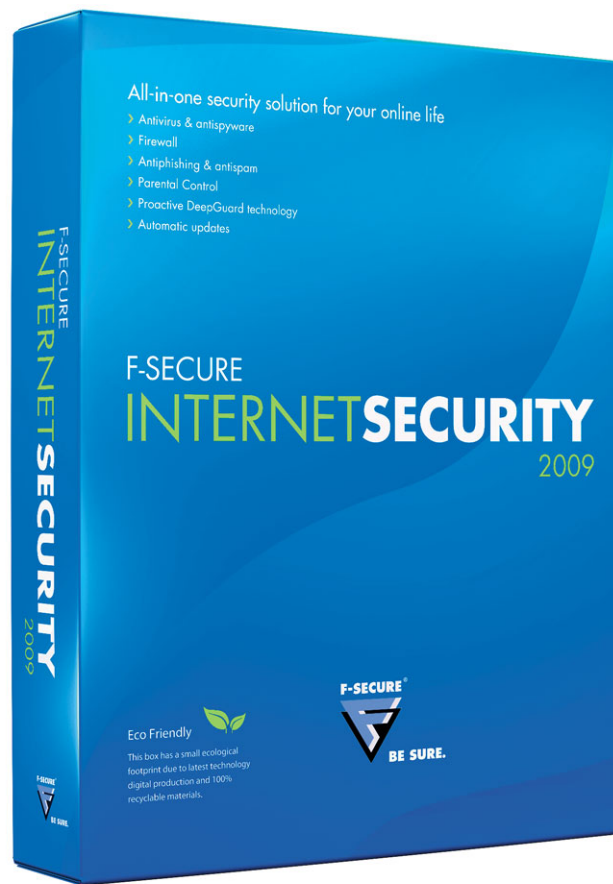
for an annual service fee.

Features & Benefits

- Wirelessly uploads photos to your PC and favorite photo sharing Web site.
- Automatically uploads to one of more than 25 online photo sharing sites like Shutterfly, Facebook and Flickr.
- PC and Mac compatible with 2GB storage capacity.
- Works with any digital camera that uses an SD memory card.
- Add Geotagging Service: Eye-Fi Share users can upgrade their card to geotag photos with geographic information about where a photo was taken (annual service fee of \$14.99).

- Add Hotspot Access: Eye-Fi Share users can upgrade their card to automatically upload photos away from home at more than 10,000 Wayport hotspots (annual service fee of \$14.99).
- Has a range of 90-plus feet outdoors and 45-plus feet indoors.
- Resizes images if required by the selected online destination.
- Advanced power management optimizes the use of the camera's power.





F-Secure Internet Security 2009 | \$79.90 | www.f-secureusa.com

Comprehensive, Easy-To-Use Security

Because your home PC faces more dangers on the Internet than viruses, it needs a comprehensive shield. Today's security suite must recognize spyware and spam, as well as scams that attempt to trick you into providing sensitive information.

F-Secure Internet Security bolsters your PC's defenses against these threats and gives you the tools you need to safeguard your children when they explore the Web.

How It Works

F-Secure Internet Security 2009 runs in the background so you can focus on the things that matter most to you. Its

anti-malware features and built-in firewall actively watch for suspicious files and activity and prevent would-be intruders from accessing your PC.

Automatic updates ensure that you have the latest protection, a critical feature at a time when viruses appear every day. A timer lets you control your child's Web surfing and other controls work to limit your child's exposure to inappropriate content.

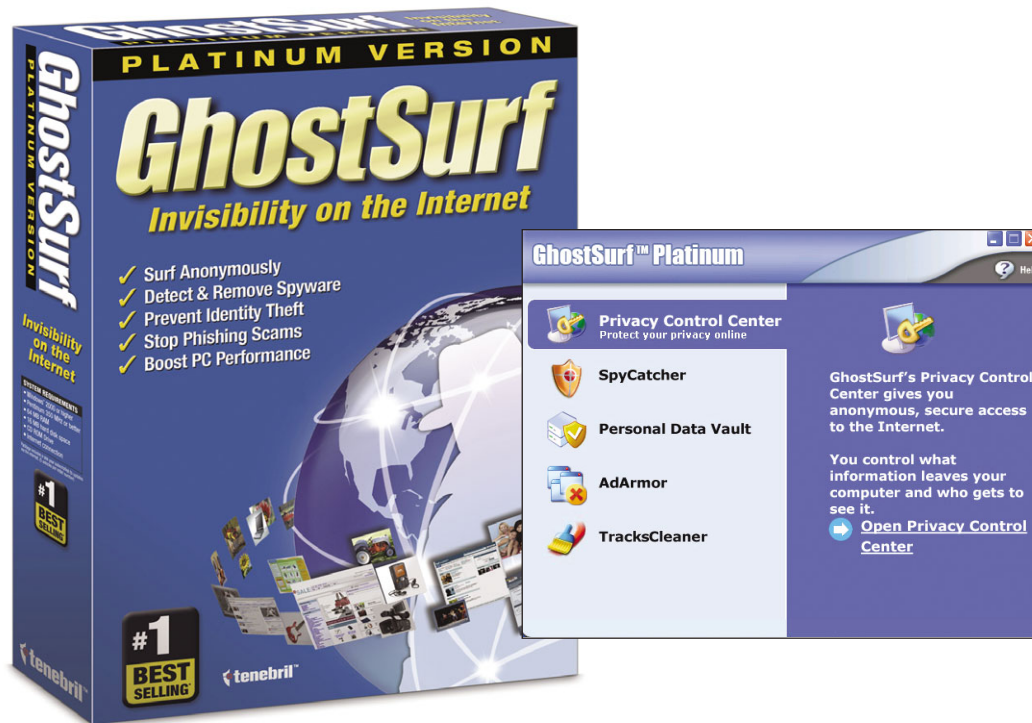
Features & Benefits

- Anti-malware features provide antivirus, antispam, antiphishing, and anti-rookit protection.
- Improved threat detection capabilities

and reduced resource usage make IS 2009 light and strong

- Automatic updates keep the software ready for anything
- DeepGuard 2.0 protects against unknown threats
- Parental controls help you protect your family
- Easy installation means you don't have to wonder if you set up the software correctly





**Save \$20
Only
\$29.95**
(reg. \$49.95)
*when you use
promotion code
SMARTFEB*

GhostSurf Platinum – Invisibility on the Internet | www.tenebril.com

Protect Your Identity Surf Securely on the Web with GhostSurf Platinum

By surfing the Web, you are exposed to hackers, bombarded by advertisements, and subjected to spyware. Everything you do and download online can be watched. Computer related identity theft affects 10 million consumers a year (according to the Federal Trade Commission). Anti-virus and firewall programs don't address these issues. Become invisible on the Web with GhostSurf Platinum. It ensures a secure surfing experience.

How it Works

To keep you safe, GhostSurf erases all traces of your online activity, encrypts your Internet connection, stores confidential files securely, and removes aggressive spyware automatically. And it's easy to use so you can surf safely right away.

Features and Benefits

- Advanced Anonymous Surfing Tools encrypt your Internet connection and route your surfing through private, anonymous hubs to ensure your security and anonymity.
- State-of-the-Art Spyware Protection blocks aggressive spyware and prevents reinstallation.
- Unparalleled Tracks Cleaning erases your Web history, cache, clipboard, cookies and more to Dept. of Defense standards for data destruction.
- Secure File Deletion prevents even aggressive hardware recovery systems from retrieving your deleted files. Scrubs previously deleted files to ensure that they are securely removed.
- Personal Data Vault provides a secure location to store confidential files and passwords.
- Eliminates Online Ads, including pop-ups, in-page and paid search engine ads, as well as ActiveX, animated images and more.
- Works With All Web Browsers and supports anonymous instant messaging, Internet Relay Chat (IRC) and news-feeds.

 **tenebril™**
A PROCESS SOFTWARE COMPANY



Orbita Mouse | \$98.50 | www.orbitamouse.com

Navigate Your Digital World With Ease

With the radical advancements in new age media the whole universe is now accessible though the window of our home PC. Today we are either surfing our planet through Google Earth, skimming though endless scrollable pages available at a click of a search phrase, mixing music, editing home videos, creating complicated data models on spreadsheets or shooting up villains in Multi Player online games. With all of this have you ever wondered why the simple device that allow us to access this new world has barely evolved since its conception in the 1960's?

Well wonder no more. The Orbita is a new age navigation wireless mouse that

does all the work of a conventional mouse but offers a far more efficient and natural means to enjoy your digital world.

How It Works

The success of this perfectly round mouse is its ability for the whole mouse to be freely spun at the flick of your wrist or precisely rotated at the touch of a finger.

Instead of gripping the mouse with your hand, simply use a combination of gentle hand motions to move, rotate and click.

The Orbita's ultra smooth spinning function lets you whizz through docu-

ments and jog through video and audio with speed and precision.

Features & Benefits

- Works on PC or Mac
- Revolutionary continuous scrolling
- Washable Silicone rubber shell
- Plus, *Smart Computing* readers get 10% off when they order online with promo code: ORBITA10 before June 1, 2009

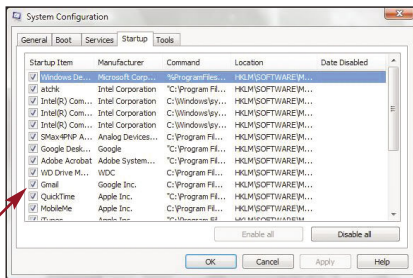


Windows Glossary

Terms Windows Users Need To Know

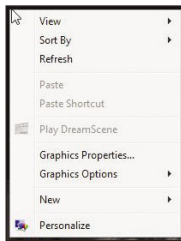
When reading about the Windows operating system, it can be easy to get lost in the technical jargon. Here are a few common terms with simple explanations to help you better understand articles.

Checkbox. As part of a dialog box, a checkbox allows users to enable or disable a feature or select or deselect an

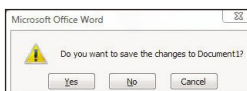


option. A series of checkboxes can be used with a dialog box to select more than one option among many.

Context menu. When you right-click with your mouse, a context menu is displayed with choices, such as Open or Properties. When you right-click an open Word document, for example, the context menu gives you options, such as Font, Paragraph, and Synonyms.



Dialog box. A dialog box is a text box that pops up to give you information and/or options. An example of a dialog box is the box that appears when you quit an Office document without saving it properly. The dialog box prompts you to either save your work,



not save your work, or cancel closing the document.

Drop-down list.

A drop-down list is a list of options presented when you click the name of a menu or an arrow next to it. In Office Word 2007, fonts are displayed in a drop-down list, which opens when you click the arrow next to the font that is currently selected.



Quick Launch toolbar. The Quick



Launch toolbar is sandwiched between the Start Menu and the list of open applications on the Taskbar at the bottom-left



corner of your screen. The Quick Launch toolbar provides easy access to applications, such as Microsoft Outlook, Internet Explorer, or any other frequently used application. The Quick Launch toolbar also offers an icon that, when it's clicked, automatically takes you directly to the Desktop without manually closing or minimizing any currently open windows.

Start button and Start menu. In order to open the Start menu, you must click the Start button (also called the Start orb).



In Vista, this is a circle at the bottom-left corner of your screen with the Vista logo on it. The Start menu is the main place to access all of your computer's programs, folders, and settings. The large left section lists frequently used programs, and the All Programs tab at the bottom is your gateway to the rest of the programs on your computer. Underneath, you will find the Start Search pane, with which you can search for files and programs on your computer. The right pane includes frequently used tools, files, and folders, such as the Control Panel and the Documents, Music, Pictures, and Games folders.

System Tray. The System Tray is located on the right side of the Taskbar, at the bottom-right corner of your screen. It displays the clock, volume, and battery levels, along with icons for system utilities. The icons give you quick access to system utilities, such as network configurations and antivirus software settings. The System Tray expands as you add more programs, such as Google Desktop, or other utilities.

Taskbar. The Taskbar is the panel that runs along the bottom of your

screen, and it includes the Start Menu and the System Tray. The Taskbar helps you multitask by displaying all of the applications you have open.

Good To Know

Learning terms associated with your PC can be a difficult task, but understanding PC jargon can help you become a much quicker learner. For more terms and definitions, check out *Smart Computing's* online dictionary of terms and the online encyclopedia (www.smartcomputing.com). ■

BY TESSA BRENNEMAN



Digitize Memories

Two Scanners

To Archive Photos

TARA SIMMONS

SEND YOUR COMMENTS TO
TARA@SMARTCOMPUTING.COM



CanoScan 5600F
\$149.99
Canon
(800) 652-2666
www.canon.com

I have a lot of photos. My hard drive is filled with images I've taken with my digital camera, and sharing and printing them is so simple that they spill out of my computer onto my walls and into the inboxes of unwitting friends and family. Capturing and sharing photos wasn't always so foolproof. Good photos from 30 or even 10 years ago seem more special to me than the loads I've taken with my digicam, because (in my family anyway) they're more rare.

Digitizing photos and film via a scanner is a great way to archive images. The Canon CanoScan 5600F and Epson Perfection V500 both helped me add old family photos to the heap of images already on my computer. Both can scan color and black-and-white photos, film, and slides. They can also be used for everyday scanning needs, such as making copies of documents.

Canon CanoScan 5600F

Setup and installation of the 5600F was simple. The software and drivers loaded within 15 minutes, and because it uses an LED (light-emitting diode) for a light source, the scanner was ready to go right after I flipped the power switch.

The main interface (MP Navigator EX) is straightforward. It spells out exactly what steps to take to perform a given task, such as scanning a photo. I also appreciated that immediately after finishing a scan, it asked for the next item instead of starting the process over completely.

Another aspect that keeps things moving is the speedy scans. Scanning a 4- x 6-inch color photo at a low 600dpi (dots per inch) resolution took about 15 seconds, and scanning a strip of 35mm film (the most extensive part of my photo-archiving project) didn't take much longer. I was disappointed that the scanner could only process six film frames

(or four 35mm slides) at once. Still, scanned images and enlargements were clear (it's capable of up to 4,800dpi), and basic color-correction and dust/scratch removal helped repair some minor flaws in old photos.

Other helpful features include backlight and grain correction and gutter shadow (the shadow between a book's pages when you open it and scan it facedown) correction.

Epson Perfection V500

The Epson Perfection V500 offers a few more features than the 5600F, and it also costs a bit more. Like the 5600F, the Epson Perfection was simple to set up, and the included software was easy to install. Apart from Epson Scan, the main software, the V500 also comes with Photoshop Elements 4. Photoshop Elements is helpful for fine-tuning color corrections and other tasks and is one of many indications that this scanner is intended for photo-related tasks like mine.

The V500 also uses an LED, so it doesn't need any warm-up time, and with a 6,400dpi resolution, it's more than capable of handling basic image-scanning and enlargement tasks. Scans took a bit longer on the V500, and with the Digital ICE feature (for removing dust and scratches from images) enabled, scans took close to two minutes, but the end result was worth it. In fact, Digital ICE was one of my favorite features. I was happy to find that it produced satisfactory images even from film that had been shuffled around, shoved in the bottom of a shoebox, and generally neglected for 25 years. I could load two 6-frame strips of 35mm film or four slides at once, which isn't a lot, but it wasn't bad for my purposes. The film adapter can also hold medium-format (6- x 12-centimeter) film.

The V500 also has features that make it a solid document scanner. It includes OCR (optical character recognition) software that lets you scan a document and transform it into editable text, and it did a great job of recognizing characters. The 5600F also includes OCR capabilities, but it wasn't nearly as useful in my tests.

If you have thousands of slides to scan, there are devices better-suited to your needs, but both devices helped me successfully transfer my shoebox of photos to my computer for safekeeping. ■



Perfection V500
\$199.99
Epson
(800) 463-7766
www.epson.com

Aluratek USB Internet Radio Jukebox

13,000 Stations On One Flash Drive

BLAINE FLAMIG

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BLAINE@SMARTCOMPUTING.COM

Millions of people now listen to Internet radio, whether the station of choice is a simulcast of a terrestrial station's broadcast; an underground Polka Party station a neighbor streams from her basement; or a UK rap station available on an Internet radio network. Whatever the source, Internet radio popularity

is soaring due primarily to one reason: It's an incredible value. Most Internet radio stations are free. Many offer dozens of genres to sample. Some let you create custom stations based on artists or songs you enter and continually fine-tune the listening experience by recommending songs you can embrace or ban. Finally, many stations are tucked away in iTunes, Windows Media Player, and other media players.

So, with all these viable choices, why would anyone pay nearly \$40 for a device that essentially does what's already doable free? If the device is Aluratek's new USB Internet Radio Jukebox, the

answer is convenience. Aluratek states its Internet Radio Jukebox is for "non-technical users who want the exceptional quality of digital Internet radio." "Non-technical" translates into a device that doesn't require paying a subscription plan, downloading software, registering an email address, or installing and using a separate media player to listen to Internet radio—all characteristics many Web-based Internet radio stations possess.

Instead, Aluratek's Jukebox puts access to more than 13,000 Internet radio stations from 150-plus countries on a USB flash drive barely an inch long and attachable to a keychain. Using the Jukebox is as easy as plugging it into a USB port on any Internet-connected

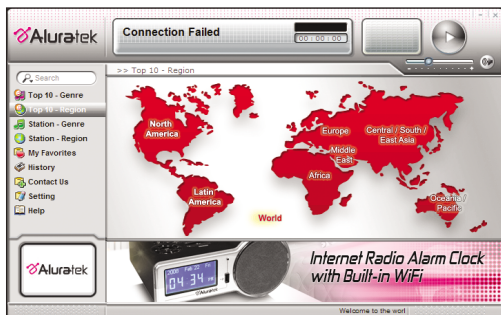
Windows 2000, XP, or Vista notebook or PC. (I successfully used the Jukebox on WinXP, WinXP Pro, and Vista Ultimate systems.) The Jukebox then auto-launches, opening a small window that organizes 52 station genres—Talk, News; Classical; Jazz, Blues; Nostalgia, etc.—into six categories. Categories include Top 10-Genre, Top 10-Region, Station-Genre, Station-Region, History, and My Favorites. With My Favorites, stations you save store to the flash drive vs. to a Web site server.

Expectedly, the Top 10-Genre and Top-10 Region categories display the 10 top stations as voted by fellow users for various genres and regions, including North America, Latin America, Europe, etc. Clicking Top 10-Region or Station-Region, meanwhile, displays an interactive global map you can use to tunnel down to stations in a specific location. Although any category leads to dozens of diverse stations, there's also a search engine.

After clicking a station's link to start streaming it (which can take several seconds), Jukebox's top area displays the current station and provides a Play/Pause button and volume slider. Below this is a section displaying available stations for a chosen genre, region, or other category, complete with the bit rate the station streams at, a link to its home page, and buttons to save a station to My Favorites and to vote a station a Hit or Miss.

What's missing is the title of the current song playing or the artist. Arguably worse is that although the Jukebox costs nearly \$40, Aluratek displays ads for its other products in the window's bottom portion. Although the ads don't interrupt the song flow, it's a questionable move. Further, unlike with such Web-based stations as Slacker (www.slacker.com) and Pandora (www.pandora.com), you can't forward through songs you don't like in Jukebox. Additionally, Jukebox occasionally dropped connections temporarily and couldn't establish connections at all in my testing. Another small complaint is that the Jukebox window isn't expandable, leaving the interface feeling cluttered and overwhelmed.

Ultimately, whether paying \$40 for a device that theoretically does what you can do yourself free makes sense boils down to what value you place on convenience. For those who live to hear new music, \$40 is small beans for the ability to instantly dial to Ireland's South East Radio, Radio Habana Cuba, and so on. ■



USB Internet Radio Jukebox
\$39.99
Aluratek
(866) 580-1978
www.aluratek.com

Never Pay A Monthly Phone Bill Again

magicJack Enables Affordable Calling

JENNIFER JOHNSON

SEND YOUR COMMENTS TO
JENNIFER@SMARTCOMPUTING.COM

Given the current state of the economy and other factors, it seems that many of us are trying to cut back on our expenses. However, there are still a number of things we're not willing to give up, one of which is our telephone. Now, thanks to magicJack, you can trade in your high monthly landline telephone bills for a single bill of just \$20 per year. That's not a typo, folks. It's really only twenty bucks per year for unlimited calling throughout the United States and Canada.



magicJack
\$39.95
YMAX
www.magicJack.com

Too Good To Be True?

I'll admit that when magicJack contacted me, I was skeptical, to say the least. The product and concept of paying so little for phone service sounded too good to be true. Still, I was intrigued, so I agreed to consider the product. I'm glad I did—the magicJack is a PC accessory that is not only affordable, but it's also very easy to use and works very well. All you have to do is plug the magicJack into a USB port on your computer, plug a standard phone into the magicJack, and start talking. There's a little bit of setup involved the first time you use the device, but it was pretty painless, as well. Call quality during my tests was very good but not completely perfect. Still, I was satisfied with the quality, especially given the price of the service.

The magicJack costs \$39.95 plus shipping and handling. This includes one year of calling to the United States and Canada; really, it's like paying \$20 for the device and \$20 for the first year of service. Subsequent one-year service contracts are available for \$19.95.

Features

For anyone who is considering switching to magicJack, you'll be glad to know that you won't have to give up any of the phone features you've come to love; magicJack comes

with 911 emergency service, call waiting, call forwarding, conference calling, and voicemail.

For users who travel internationally, you can take your magicJack overseas and call the United States and Canada, as well as other magicJack users in the world free. If you're already in the United States and want to call internationally, you'll need to pay a small per minute fee. magicJack makes its international billing rates available at www.magicjack.com/international.

What You Need

To use the magicJack, you'll need a computer running Windows XP or Vista, or an Intel-based Mac, along with a corded or cordless telephone and a broadband, high-speed Internet, cable Internet, DSL, Wi-Fi, or WiMAX connection. If you'd rather, you can use a headset or your computer's microphone and speakers instead of a standard telephone.

magicJack offers a number of phone numbers in area codes throughout the United States. Though I wasn't able to get a number that is local to the city I live in (I've had this problem before with other Internet-phone providers), I was able to get a phone number with the same area code that is local to a larger city near where I live. To see if a particular area code is available to suit your needs, check out www.magicjack.com/areacodes. According to the company's Web site, number portability, which would let you transfer your existing phone number to magicJack, is coming sometime this year for a nominal fee.

I've been a happy VoIP (Voice over Internet Provider) subscriber for a few years now and have always been thrilled with the fact that I can have a home phone and pay less than my local telephone company would charge. However, recently, I've been considering giving it up, simply because even \$30 per month adds up fast. Doing the math for myself, I can save \$340 per year by switching to magicJack. That sounds pretty good to me. How about you? I know I'll be one of many to make the leap to magicJack soon. ■

A Luxurious Voyage(r) & A Suite With A High-Def View

MARTY SEMS

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MARTY@SMARTCOMPUTING.COM

A couple of new products have caught my attention lately. To wit:

Corsair Flash Voyager 64GB

Corsair is on my short list when I need RAM or a new power supply. The reason it's such a go-to company—not only for me, but for a large and growing number of computer geeks—is because its memory and other products are reliable, speedy, and priced right. These fine traits are hallmarks of the company's lines of USB flash memory drives, too.

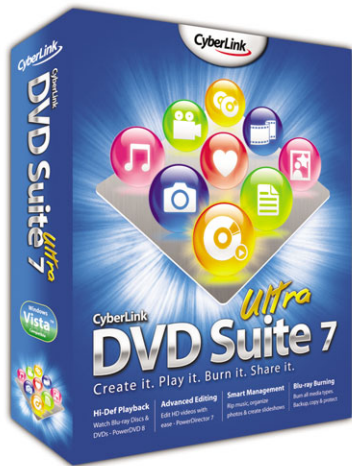
Maybe “priced right” isn't so easy to say about a \$249.99 USB drive, but this is a cutting-edge 64GB capacity we're talking about. Corsair's latest Flash Voyager has enough capacity to move entire video or music collections from one system to another. Techies who carry portable desktops around with them on bootable USB drives will be in seventh heaven. Corsair's Flash Voyager GT may be faster, but that performance model currently tops out at 16GB.

Part of the appeal of the Flash Voyager line is a tough, water-resistant rubber shell. The flexible armor is a little “grabby” in a pocket; this doesn't make it easy to slip in, but it does make it unlikely that the Flash Voyager will accidentally slip out in a car or on a couch. The rubber enclosure may protect the drive, but it tends to pick up dust, lint, and pet hair, too.

Corsair points out that Flash Voyager review samples have been “laundered, baked, frozen, boiled, dropped, and even run over by a SUV” by independent testers and have kept on tickin'. A 10-year warranty makes it clear that the company is putting its money where its mouth is.



Flash Voyager 64GB
\$249.99
Corsair
(510) 657-8747
www.corsair.com



DVD Suite 7 Ultra
\$129.95
CyberLink
(510) 668-0118
www.cyberlink.com

CyberLink DVD Suite 7 Ultra

This impressive collection of multimedia apps tries to make it easy for you to create discs of all kinds, along with videos and slideshows for your HDTV, YouTube, or mobile devices. It's a worthy competitor to Nero and Roxio. It tends more toward the latter in its ease of use, but its colorful nature and slick interface evoke some of Apple's efforts.

This Ultra edition for Windows XP/Vista costs more than the \$79.95 Centra version, but it gives you high-def capabilities such as BD (Blu-ray Disc) playback and authoring. Blank Blu-ray media is still ridiculously expensive, however, so CyberLink lets you make AVCHD (Advanced Video Codec High Definition) and AVCREC discs (DVDs with high-def video), which are playable on compatible BD players. Both Ultra and Centra versions let you create 5.1-channel Dolby Digital audio.

Speaking of playback, the Suite's PowerDVD 8 player also supports Bonus View and BD-Live features, as well as 5.1 channels of surround sound in advanced audio formats such as Dolby TrueHD and Dolby Digital Plus (2-channel sound in DTS-HD [Digital Theater Systems] Master Audio). Elsewhere, the Suite features expanded support for AAC (Advanced Audio Coding) and H.264 files.

DVD Suite 7 can burn video to disc even as it's capturing footage from your camcorder. When you're editing your standard- or high-def video, you'll be able to download templates, effects, audio clips, and still pics to spice things up. Make your own, and you can share them online. And as ever, there are “magic” tools to make your photos and videos look better and to automatically create themed videos edited to the beat of the background music.

Some CyberLink apps have their quirks, but overall I'm impressed. When it's time for your PC to take the high-def plunge, DVD Suite is ready. ■

Head-To-Head: Password Managers

Safe Storage For Your Passwords

These days, it seems the only things certain in life are death, taxes, and passwords. Web sites and other programs are continually increasing security, which means you have to keep coming up with (and somehow remember) longer and more complex passwords.

Many people already have a system for remembering passwords that can include several sticky notes or lengthy spreadsheets. Some people avoid having to remember several passwords by using a single password for everything. None of these methods provides adequate protection for your personal information. Password managers, on the other hand, let you keep track of different usernames and passwords, making it harder for someone to infiltrate all of your personal accounts after guessing a single password or stealing the sticky note off your desk.

Password managers can be downloaded to your Desktop, kept online, or saved on a portable storage device (such as a USB flash drive). Some password managers offer unique features to help you protect your personal accounts, such as password generators, but all password managers make it easier for you to protect your information without losing track of your multiple usernames and passwords.

Animabilis Aurora Password Manager

Animabilis Aurora Password Manager looks and feels like a spreadsheet for all your login information (including everything from email to PINs), so it's comfortable and easy to

use. You can split your information into categories, such as Web applications (email, instant messenger), credit card information, and PINs, and there is even a place to keep notes for yourself. Aurora Password Manager has a very comprehensive list of information it can keep track of, including cell phone information, information about people in your contacts list, and a list of bookmarks. Aurora Password Manager can also be downloaded to a USB flash drive or another type of

which makes guessing your password nearly impossible.

Aurora Password Manager has an add-in for Internet Explorer that lets you quickly save login information or generate a password for a new Web account. The Web browser add-in (only available for Internet Explorer) also has form fill, which will automatically fill out Web forms that ask for personal information. What's more, Aurora Password Manager has backup and restore options to prevent your information from being lost.

CyberScrub KeyChain

KeyChain is a simple program that offers the basic features of a password manager, such as the ability to store several different types of data (such as passwords, credit card information, and addresses), but it doesn't get a lot


Many people already have a system for remembering passwords that can include several sticky notes or lengthy spreadsheets

portable storage device for access to your information on any computer.

The 256-bit AES (Advanced Encryption Standard) encryption helps to keep your information out of the hands of criminals, and the password generator will ensure you have iron-clad passwords. The password generator will produce a password that has a combination of case-sensitive letters, numbers, and other characters,

of points for style. It offers an add-on to Internet Explorer, which doesn't blend in with your Web browser toolbar as well as other password managers do. Additionally, KeyChain will pop up every time you go to a secure Web site to offer to remember your information. If you will likely forget to enter your information into KeyChain, this will be a good feature. Otherwise, having to constantly

Systems Supported

Aurora Password Manager	 Windows 2000	 WinXP	 Vista
KeyChain	 Windows 2000	 WinXP	 Vista
Password Manager	 Windows 2000	 WinXP	 Vista
Handy Password	 Windows 2000	 WinXP	 Vista
RoboForm Pro	 Windows 2000	 WinXP	 Vista

BUYING TIPS

- **Safety First.** When you are comparing password managers, take a close look at the type of security features it offers. Keeping your personal information and accounts private should always be your top priority.
- **Take It To Go.** If you are always moving from one computer to another, be sure your password manager supports the use of a USB flash drive or some other type of portable hardware. This will help you access your accounts from anywhere, anytime you need to get into your account quickly and securely.

minimize the KeyChain window may simply get on your nerves.

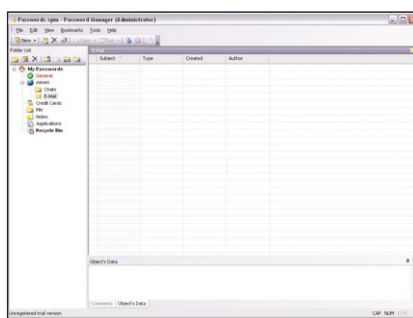
KeyChain does offer several helpful elements in addition to the aforementioned features, including automatic form fill, backup and restore abilities, support for portable USB flash drives (with full synchronization between the host PC and KeyChain), and a password generator. KeyChain also has support for multiple users, along with single and dual authentication modes. This means that more than one individual can have their own secure and private account on a single KeyChain program. It also means that you can enable KeyChain to be accessed with a single master password, or you can set KeyChain to only be accessible with a master password and a USB flash drive. Dual authentication makes KeyChain more secure than single authentication.

Handy Password

Handy Password includes many of the same features other password managers have, including a form filler, bookmark manager, and password generator. When you save personal information, however, you save it on cards, as though it were a digital Rolodex. Handy Password will store information in categories, such as email, finances, and shopping. You can also add your own folder categories.

The password generator lets you set the criteria for your randomly produced password, such as the number of symbols it will include, whether or not the password has both (or either) lowercase and uppercase letters, and whether or not similar characters are included or excluded.

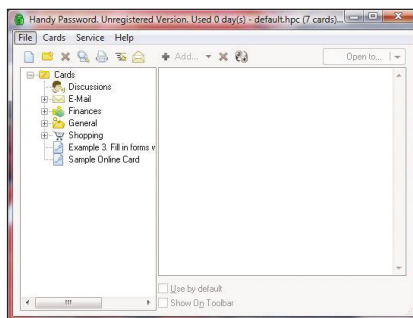
Handy Password has an add-in for both Internet Explorer (version 6.0 and later) and Mozilla Firefox (version



The Aurora Password Manager looks and feels like a spreadsheet that keeps all of your sensitive login information.



CyberScrub will appear whenever you enter a Web site that includes login information.



Handy Password has a simple user interface.

1.5 and later), which provides features such as automatic form fill and Auto-submit. Autosubmit will automatically log you in to your account after Fill enters your login information. When

you enter the URL of your secure Web application information into the Handy Password account log, you can access your account from the Handy Password database.

With 128-bit AES encryption, your information will very likely be safe. There are slight differences between 128- and 256-bit encryption. Each character of your password represents eight bits; therefore the difference between 128- and 256-bit encryption is the difference between a 16- and 32-character password. If you don't use the allotted characters, the rest of the password will be filled with zeros (making it easier to guess), which is why some security experts suggest having a **passphrase** (a multiword password), rather than a password.

You can also rest assured that your information will be safe, even if your hardware is damaged, with Handy Password's backup features. For example, Handy Password lets you store your database on an email server so you can access it from other computers.

You can purchase Handy Password as an Internet browser add-in, or you can purchase a version of Handy Password for your USB flash drive. It costs extra to download both, however.

Large Software Password Manager

Large Software Password Manager not only helps you stay on top of usernames and passwords for all types of applications and Web programs, it also lets you store multiple passwords for each program and Web site account you have. Your information database is protected by one of eight available encryption algorithms, including AES 256-bit encryption.

You can choose to enable the Autofill feature when you add a new

account to your database. When this feature is enabled, your login information (username and password) will be automatically entered in the appropriate spaces in the program or Web site. If you have your Password Manager database locked, this option will be unavailable.

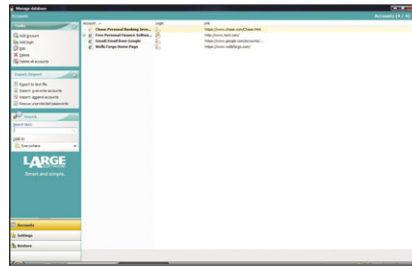
The Link-It feature is unique to Password Manager. To use the Link-It feature, hover your mouse over the Password Manager icon in the System Tray. When the padlock appears above the Password Manager icon, click it, and then drag it over the account (either a Web account or a secure desktop program) you want to add to your Password Manager database. This will let you quickly add the account to your database. You can also add a Web page by clicking the padlock button next to the minimize button located in the top-right corner of your Web browser. Once that account information is added, you can access your secure information via the Password Manager Database.

In addition to Link-It and Autofill, you can copy your password onto a clipboard and paste it in account login boxes, or you can access your information after doing a quick search in the Password Manager database.

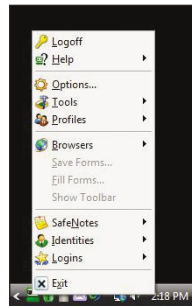
If you are worried about forgetting usernames and passwords while using a different computer, Password Manager and your database can be downloaded onto a portable storage device, such as a USB flash drive.

Siber Systems RoboForm Pro

RoboForm Pro keeps track of all your sensitive login information on Passcards, which are available to edit and use via the RoboForm icon in your System Tray or your Web browser (Internet Explorer, Firefox, Avant, MaxThon, and Slim Browser). Passcards are all saved as individual files, so you can share them with family and friends via email. In addition to the passcards, RoboForm has Safenotes which can securely store information such as combinations,



Large Software's Password Manager lists usernames and passwords in a big database that is manageable from the system tray.



Unlike other password managers, RoboForm is controlled from the System Tray.

registration codes, and other lengthy codes and passphrases.

RoboForm Pro doesn't just store all your sensitive login information, credit card numbers, and automatic form fill information, it also locks it up tight with 256-bit AES encryption algorithms. RoboForm will also automatically log you out after sitting idle. Additionally, for households with multiple computer users, RoboForm offers separate, multiple accounts.

RoboForm also offers RoboForm-2Go and RoboForm2Go Pro, which can be downloaded to your USB flash drive and stores all your passwords, contacts, and bookmarks.

Use It Or Lose It

If you want to keep your information safe, ditch the spreadsheets and the sticky notes for good. Password-management software will not only keep your data safe, but it will also prevent you from forgetting all those different passwords and getting locked out of your private accounts. ■■

BY TESSA BRENNEMAN

Password Manager Information

Aurora Password Manager

\$29

Animabilis

Contact online only

www.animabilis.com

Notable Features:

- Exports information in CSV (comma-separated values), XML (Extensible Markup Language), and HTML (Hypertext Markup Language) formats

KeyChain

\$39.95

CyberScrub

(770) 951-2080

www.cyberscrub.com

Notable Features:

- Single and dual user authentication
- Automatic logout after sitting idle

Password Manager

\$29.95

Large Software

Contact online only

www.largesoftware.com

Notable Features:

- Link-It feature lets you quickly add account information
- Includes eight different encryption methods to choose from

Handy Password

\$29.92

Novosoft Software

sales@novosoft-us.com

www.novosoft-us.com

Notable Features:

- Support for both Firefox and Internet Explorer
- Online password storage

RoboForm Pro

\$29.95

Siber Systems

(877) 762-6367

www.roboform.com

Notable Features:

- Support for several different Web browsers
- AutoUpdate regularly checks for updates to RoboForm Pro

A Suite Alternative

OpenOffice.org 3

Free | Sun Microsystems
support.openoffice.org | www.openoffice.org



Windows 2000



WinXP



Vista



Mac



Linux

For years, fans of open-source software (programs whose code is freely available and often developed by community effort) have touted the benefits of OpenOffice.org (formerly OpenOffice). With the release of version 3, the murmurs of interest became a roar. According to statistics from OpenOffice.org, about 12 million users downloaded it in the month after its October 2008 release. Of those, 90% were Windows users. (The initial rush of downloads actually crashed OpenOffice.org's servers, according to published reports.)

The idea of a free productivity suite with as much functionality as Microsoft Office is pretty tantalizing. Is OpenOffice.org a realistic replacement for Microsoft Office, Corel WordPerfect Office, and other fee-based productivity suites? After putting it through its paces, we'd have to say that, for many people, it is.

Easy Does It

Installation is easy and surprisingly fast, given the size (nearly 150MB) of the download. (If your Internet connection makes the download torturous, you can order a CD.) During

installation, OpenOffice.org will update your Java installation if needed, let you opt to change the locations of both temporary and permanent installation files, or let you customize the content of the installation.

After installation, the program is easy to explore. Click Start and Programs/All Programs, and under OpenOffice.org 3.0, you'll find links to the suite's six programs—Base (database), Calc (spreadsheet), Draw (graphics), Impress (presentations), Math (equation editor), and Writer (word processor). There is also a link (OpenOffice.org) to a combined registration wizard and central interface. However, we found the blue QuickStart icon in the System Tray much easier to use. Right-click it, and up pops a menu listing all of OpenOffice.org's programs.

Lots Of Goodies

We don't have room in this review to delve deeply into OpenOffice.org. Suffice it to say its programs look and perform much as those of Microsoft Office (2003 and earlier versions). However, they offer numerous perks you won't get natively with Office.

One is Wizards, which opens wizards that create specific file types

or perform key conversions. Another is Export As PDF, which converts your files into PDFs.

You can even batch convert files (OpenOffice, Microsoft Office, or graphics) into PDFs (this nifty treat is hidden under the Web Page wizard). Other features, such as support for digital signatures and one-click access to Draw's media gallery in most OpenOffice.org programs, as well as numerous free, third-party extensions you can add, make this suite a real winner.

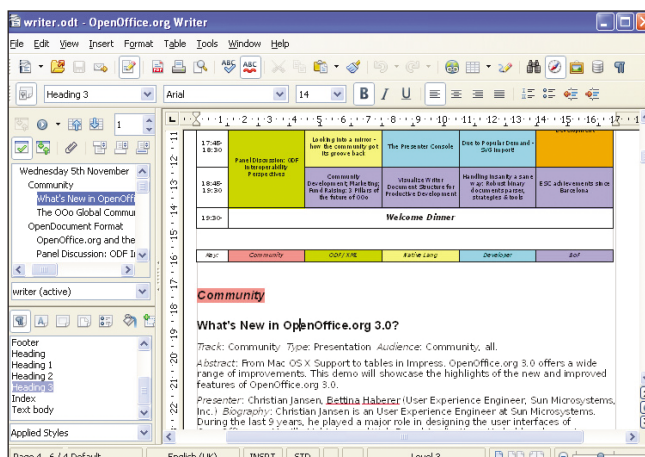
What's Not To Love?

Why wouldn't you want to use this program? First, OpenOffice.org does not include an email client in the way that some versions of Microsoft Office do. Second, although it supports Microsoft Office 2003 and earlier files and can open Microsoft Office 2007 files, it cannot natively save documents in the Office 2007 format.

Third, support is limited to online support (tutorials and excellent community forums) unless you pay Sun for support. Complaints we found on user forums (but did not personally experience) are that the 3.0 release is somewhat buggy (it should be stable by the time you read this), and it bogs down when processing large files—especially large databases. Because the average user doesn't manipulate large databases, we don't consider that an issue, but power users might. The program is free and easy to use—unless you already own and love Microsoft Office, we recommend you give OpenOffice.org 3.0 a try. ■

Key Features: Free office productivity suite with broad-based functionality and bonuses such as Math (equation editor) and Draw (graphics program).

BY JENNIFER FARWELL



Block Unwanted Email

BullGuard Spamfilter

Free | BullGuard
 mail@bullguard.com | www.bullguard.com
 www.bullguard.com/support.aspx (free live chat)

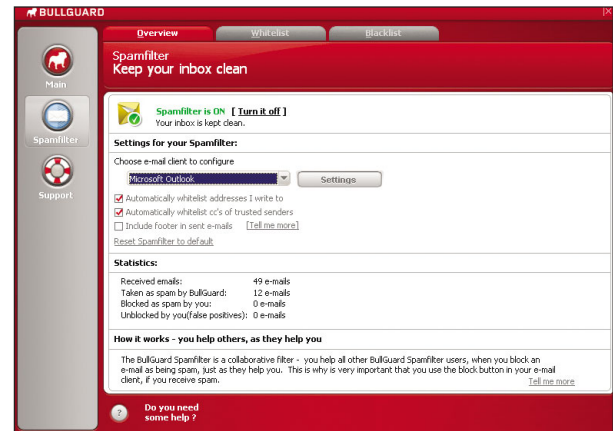


Spam composes some 80% of all email messages sent these days, and most of us have one or more spam filters working at the ISP (Internet service provider), server, or PC level. If you're not getting enough help, give BullGuard Spamfilter a go. It installs as an add-in module to Microsoft Outlook, Windows Mail, or Mozilla Thunderbird; if it conflicts with any existing software, it should be easy to disable (in Outlook, use the Customize option on the Tools menu).

After a quick install, open your email client, and BullGuard will prompt you for a training session, during which it will create your Whitelist (always allow) and ask you to identify folders with only good or bad mail. This process runs faster than similarly styled programs we have

evaluated, so forge ahead if you are sure you have good-only and bad-only email folders to offer. If not, skip it and run the Wizard option once you clean up your folders.

Once training is complete, BullGuard uses a combination of word analysis and self-education, based on your messages and feedback, plus input from other BullGuard users, to control spam. It also lets you create a Blacklist (always block) and tweak your Whitelist if desired. Is BullGuard the most powerful spam fighter available



Key Features: Intuitive spam fighter uses input from a global user base to help control your inbox.

anywhere? It's hard to say, but it does a good job and is user friendly. ■■

BY JENNIFER FARWELL

Make The Most Of Photos

Photoshop Elements 7

\$99.99 | Adobe
 (800) 833-6687 | www.adobe.com



Have you ever taken shots but later found they contained unwanted distractions (like someone walking by)? If so, you will love Photoshop Elements 7. Its new Scene Cleaner tool can magically take those distractions away. Tired of dingy teeth on your subjects? Instantly whiten them. Need to quickly highlight a particular portion of a photo, such as a flower or a face, for touch-up?

Photoshop Elements' selection tools are more intuitive than ever, making it easy to delineate the edges of objects, even when they don't contrast sharply with the background. (Those that blend into the background require more hands-on effort.)

These and other quick-fix tools, filters, and special effects (some borrowed

from Photoshop), plus three different editing modes (Full Edit, Quick Fix, and Guided Editing) make this release a winner, even if you already own Photoshop Elements. It also links you with Adobe's new photo-storage and sharing site, Photoshop.com. Basic membership is free, and it includes 2GB of storage space for photos you can then access from any Internet connection. Upgrade to the Plus membership, and Adobe will throw in more storage space and goodies. The one thing still missing? Elements continues to ignore the CMYK format needed for commercial print production. ■■

Key Features: Update includes magical special effects that make the most of amateur photography. Bundles (\$149.99) with Premiere Elements 7 for a complete image- and video-production solution.



BY JENNIFER FARWELL

Personal Finance Software

Quicken Home & Business 2009

\$89.99 | Intuit
(650) 944-6000 | quicken.intuit.com

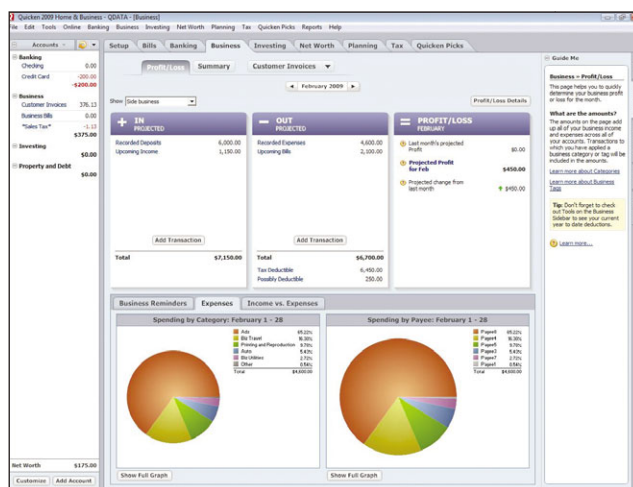


If you've considered using financial software for your personal finances, you've probably looked at Intuit's Quicken brand, which competes with Microsoft Money. The software lets you maintain checking account registers (as well as registers for other types of accounts) and helps you manage long- and short-term budgets.

Business vs. Personal

This month, we looked at a version of Quicken that helps you if you have a small business—particularly if you run that business out of your personal checking account. “We are targeting customers whose business is their personal finances,” says Jim Del Favero, group product manager for Quicken. “Consultants, sole proprietorships, generally businesses without employees or inventory. This also includes couples where one might have a side business or do some contracting on the side.”

If you pay business and personal expenses from the same account, you're probably having a tough time keeping track of your business expenses. And without profit and loss data, you may have trouble determining whether your side business is destined to be a hobby or ready to become your career. Enter Quicken Home & Business.



Key Features: An easy-to-use Business Tag system and a Business section help you keep track of your side business transactions within your personal accounts.

Business Essentials

Quicken's Business Tag feature is key to separating business and personal expenses. The tag (which isn't available in other versions of Quicken) is a user-created name (likely the name of your business), which you can use to flag every business-related expense and deposit that appears in the checking account register.

You'll create the Tag in the Business tab, which is the section that gives you a quick look at your business. We were glad to see that, as with previous versions of Quicken, Quicken Home & Business has plenty of tips. If you're not certain about the purpose of a field, you can click the Why Does This Matter (or similar) link next to it to see an explanation.

Once you've created the Business Tag, you'll find that you can easily add the tag to any entry in Quicken's register. (The Tag field sits next to the Category field.) When you return to the Business tab, you'll see a profit and

loss snapshot, based on the tagged register entries.

Of course, the Business section offers more than profit and loss information. Click the sections Summary button and you will find an interface that tracks invoices and bills, as well as any accounts or credit cards specific to your business. You can also create polished invoices and then print or even email them to customers.

Taxes

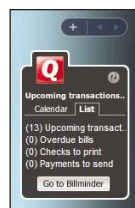
As you tag business transactions in the register, you'll notice that a small TurboTax (turbotax.intuit.com) icon appears on those entries. (TurboTax is Intuit's popular tax preparation software.)

The TurboTax icon indicates a transaction that is (or may be) an appropriate transaction for the IRS (Internal Revenue Service) Schedule C tax form (the form that covers self-employment). If you use Quicken to prepare your taxes, you'll be able to import the data (including Schedule C transactions) from Quicken to TurboTax.

A Helpful Gadget

Quicken Home & Business also includes a handy Billminder Gadget, which sits on Vista's Sidebar. If you can't remember when that upcoming bill is due, you can check the Gadget without bothering to completely open Quicken. It's a nice touch for an already worthwhile program. ■

BY JOSHUA GULICK



Use the Quicken Billminder to stay on top of upcoming expenses, even when Quicken isn't running.

Do-It-Yourself Greeting Cards

Hallmark Card Studio 2009 Deluxe

\$49.99 | Creative Home Software
(818) 222-7200 | www.hallmarksoftware.com



If you're the friend who buys the birthday card on your way to the party, Hallmark Card Studio 2009 Deluxe will save you that stop. The software puts an array of Hallmark greeting card images on your PC so you can quickly customize and print a colorful card that looks as if it came from a Hallmark store.

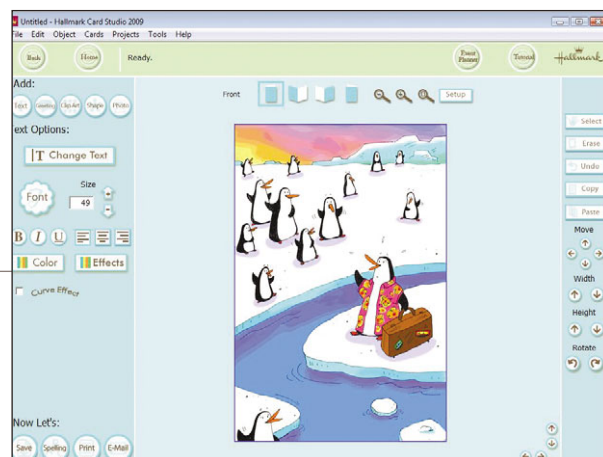
Greeting categories (such as Anniversary and Birthday) and thumbnail images of the cards make finding the right card brief and enjoyable. At that point, you can customize the card by adding digital photos from your collection, replacing stock text with your own words, and adjusting fonts. We were surprised by just how easily we were able to make changes to the cards.

Once your card is ready, you can email or print it. If you email the card,

Key Features: Tons of card ideas, pictures, and stock text make this software a real treat for people who like to customize greeting cards.

your recipient can open the card and flip its pages, all on his computer. If you print the card, you have the option of using standard 8.5- x 11-inch paper or other paper sizes. Hallmark also sells special greeting card paper and envelopes (\$10.99 for a 20-sheet pack).

Unlike most programs today, Hallmark Card Studio 2009 Deluxe includes a printed manual. Tech-savvy



users will likely skip the manual because it's so easy to use, but people who aren't as comfortable with computers will benefit from the manual's step-by-step instructions. ■

BY JOSHUA GULICK

Research Materials On Your PC

Encyclopædia Britannica 2009 Deluxe

\$29.99 | Avquest
(800) 395-6682 | www.avquest.com



Students often turn to the Internet for research, but they don't always find what they're looking for. The Web is a mixed bag when it comes to accuracy and appropriateness, so many parents encourage their children to use an encyclopedia. That's where Encyclopædia Britannica 2009

Deluxe, with credible sources and exciting content, shines.

Because it's software, Britannica 2009 Deluxe has features that the print volumes don't, such as videos and links that let you move from an article about Andrew Johnson to another regarding the Tenure Of Office Act.

Other important tools include the Merriam-Webster's dictionary and thesaurus, as well as BrainStormer. This feature helps you search for articles by displaying topics related to your

original topic. It provides an easy way to find worthwhile articles that you probably would have missed by using the software's standard search engine.

We also like Workspace. If you find an article related to the topic you're researching, you can link it to the Workspace and continue your research. Return to the Workspace page later to access the materials you bookmarked.

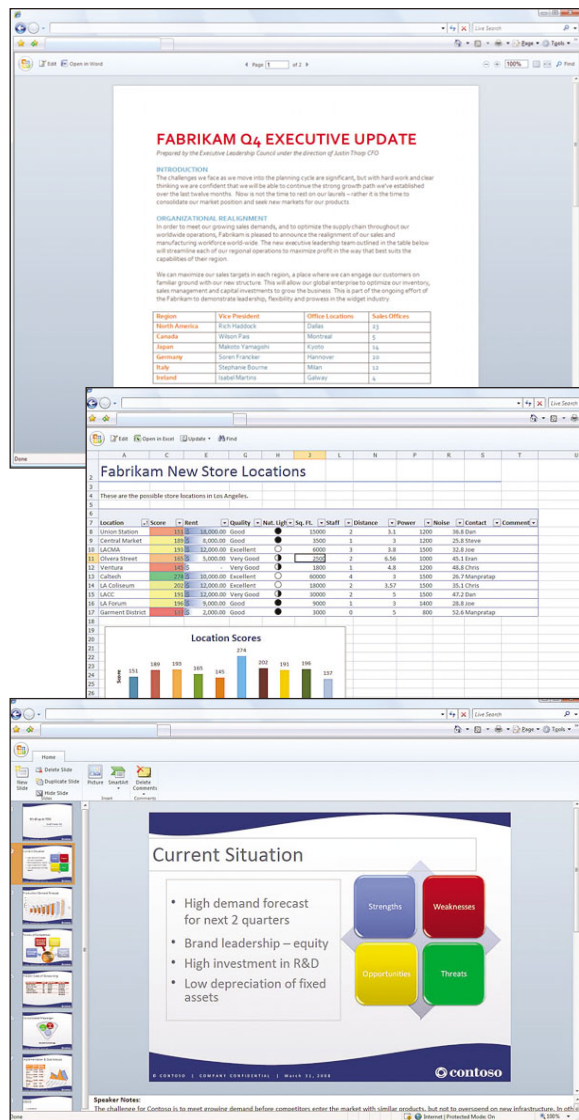
Encyclopædia Britannica 2009 Deluxe is a self-contained unit. If you would like more content, check out Encyclopædia Britannica Online (www.britannica.com), which has free and premium content. ■

BY JOSHUA GULICK



Key Features: Tools for researching articles and taking (and organizing) notes make homework research productive and exciting.

Microsoft News



Microsoft Office Applications Coming To Web Browsers

Microsoft says the next release of its Microsoft Office productivity suite will include lightweight versions of certain applications—Word, Excel, PowerPoint, and OneNote—that will run in a Web browser.

These browser-based Office applications will be compatible with Internet Explorer, Firefox, and Safari browsers and will be made available to individuals through the Office Live Web site (www.workspace.officelive.com). Beta testing is currently underway, though Microsoft has not yet set a release date. ■

Web-based versions of Microsoft Word, Excel, and PowerPoint are under development.

Microsoft Receives Patent For Audio Filtering Technology

Microsoft has been granted a patent for what it calls an “automatic censoring filter” that can recognize and block profanities and other undesirable words or phrases from audio in real time. The patent, which Microsoft applied for in 2004, describes a system that can filter out undesirable words or phrases by either deleting or muting them or even possibly replacing them with acceptable substitute language.

This technology would be helpful to television or radio broadcasters as an automated alternative to having to delay live broadcasts for several seconds so that human censors can monitor for and “bleep” out profanities. It could also be used to automatically censor the live chat feature of online games. ■

Microsoft & Yahoo! Team Up Against Email Lottery Scams

Microsoft and Yahoo!, two of the largest free email providers, are joining forces to combat email-based lottery scams, a common form of fraud that can fool people into paying a fee up front in order to collect a nonexistent prize.

In partnership with the African Development Bank and Western Union, Microsoft and Yahoo! will aim to educate Internet users about the dangers of lottery scams, as well as help investigate incidents on behalf of victims.

In a recent study commissioned by Microsoft, 51% of respondents said lottery email scams made them more reluctant to shop online. ■

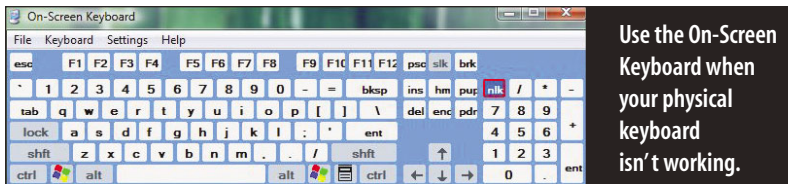
YAHOO!

Windows Tips

On-Screen Keyboard Lets You Type With Your Mouse In WinXP & Vista

If you ever find it difficult or impossible to type due to an injury (or if your keyboard suddenly stops working), on-screen keyboards included in both Windows XP and Vista might help make things a little easier.

In WinXP you'll find the On-Screen Keyboard under Start, All Programs, Accessories, Accessibility, while in Vista you can summon it by clicking Start, All Programs, Accessories, Ease Of Use, On-Screen Keyboard.



After launching the keyboard, you can customize its appearance by changing the layout or eliminating the numeric keypad via the Keyboard menu, for example. From the Settings menu, you can change the font, turn on a keyclick sound, or set the Typing Mode option so that simply hovering over a key momentarily—rather than clicking it—will activate it. ■

Easily Access Web Sites From The Taskbar

If you visit a lot of Web sites, putting an Address Bar in the Windows Taskbar can save you the step of having to launch your browser (or switch to it) before you can type in an address.

To add the Address Bar to the Taskbar of either WinXP or Vista, right-click somewhere on the Taskbar, select Toolbars, and then click Address. Your new Address Bar may open Web sites in either a new or existing browser window (or tab), depending on which Web browser you use and how it's configured. ■



Fine-Tune Vista's Power Management Features

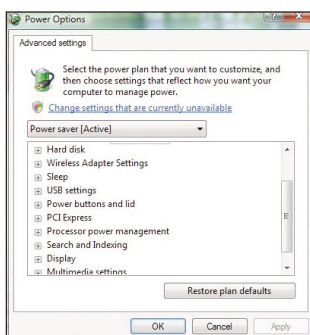
To help you maximize battery life—or just save electricity—Vista offers three standard power plans to choose from. But these default power

Windows Vista

plans, Power Saver, High Performance, and Balanced, include more than a dozen different hardware and system settings that you can tweak to your liking.

To customize a power plan, type **power options** into the Start menu's search box. After launching Power Options, pick a power plan and click its Change Plan Settings link. Then on the resulting screen, click Change Advanced Power Settings.

From here, you'll be able to modify power settings for lots of different parts of your system, including the hard drive, wireless network adapter, display, and more. ■

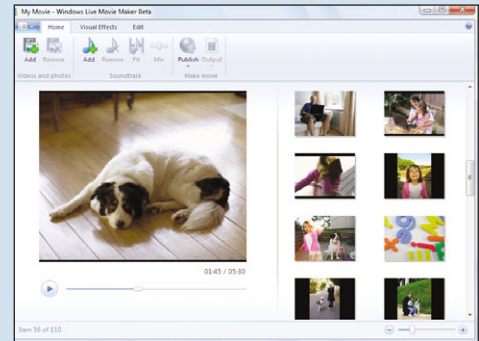


Customize your power management options.

Windows News

Vista's Built-In Email, Photo & Movie Utilities Dropped From Windows 7

Microsoft announced that Vista's applications for email access, photo-editing, and movie-creation will not be included with the upcoming Windows 7 operating system.



Microsoft doesn't plan to include Windows Mail or Movie Maker in the Windows 7 operating system, but Windows Live Mail and Movie Maker will be available as free downloads.

Although Windows Mail, Windows Photo Gallery, and Windows Movie Maker won't be part of Windows 7, they'll be available free (via download from Microsoft's Windows Live service) as part of its Windows Live Essential Suite.

Microsoft says separating these programs from the operating system will allow it to update them more frequently. ■

Service Pack 2 For Vista, Office On The Horizon

Vista's second Service Pack has entered the beta testing phase and is scheduled for release sometime in the first half of this year.

Vista SP2 will incorporate all post-Service Pack 1 updates, as well as Windows Search 4.0. Other enhancements will include support for Bluetooth 2.1-compatible devices, the ability to record Blu-ray Discs without third-party software, and easier Wi-Fi configuration, due to the addition of WCN (Windows Connect Now).

Also on deck is a second Service Pack for Office 2007, which Microsoft says will be released between this month and April. ■



Windows XP

Create Slideshows With Photo Story 3

Story projects have WP3 file extensions, as in MySlideshow.WP3.

Editing & Effects

Remove Black Borders is a command that applies to all the photos in the timeline at once, not just the selected picture. It crops your photos so that they fill the screen without letterboxing (black bars), which also means that it cuts off parts of your pictures you may want to see. Also, the subsequent enlargement may make some photos fuzzy.

If you choose to use Remove Black Borders, click it.

Photo Story 3 will present each photo to you in turn, showing you where it will crop each picture and how each will look when enlarged. You'll have the chance to approve or adjust each photo. Click Yes To All if you want Photo Story to make all the decisions without your help or Cancel if you change your mind.

Directly under the preview window, you'll see buttons that apply only to the selected image. Click Correct Color Levels or Correct Red Eye to apply their magic; click them again to undo their changes. Two more buttons rotate the photo.

Click Edit for more touchup and effect features. The Edit Pictures window will appear with its Rotate And Crop tab selected. To crop a photo, click the checkbox. You'll

When you're ready to turn your digital photos into smart-looking presentations, grab Microsoft's Photo Story 3 for Windows XP. It automatically gives your slideshows the features you probably want, such as pan and zoom motion, dissolves between pictures, and audio that fades out at the end of the slides. Photo Story 3 is a free 5MB download (tinyurl.com/48jvat).

The Basics

After installation, launch the program by clicking Start, (All) Programs, and Photo Story 3 For Windows. On the welcome page, choose Begin A New Story and then click Next.

Now you'll see the Import And Arrange Your Pictures window. Select Import Pictures and then browse to the digital photos you would like to turn into a slideshow. Click a pic you want to use and select OK. To choose more than one photo at a time, hold down the CTRL key as you click them.

Along the bottom edge of the Import And Arrange Your Pictures window, you'll see thumbnails of your photos in the order they will appear in the final slideshow. It's easy to change the lineup of the pictures: Simply click and drag a photo to its new location.

The large preview window shows you a bigger version of the photo currently selected in the timeline at the bottom. To select a different photo, click it. The arrow buttons to the right of the timeline will move the selected photo right or left, whereas the X button will delete the selected photo.

Before you continue, take a moment to click Save Project. Choose a folder and then name your project before you click Save. Later, to reopen a work in progress, launch Photo Story 3 and select Edit A Project. Photo



Microsoft offers Photo Story 3 as a free download.

now see a box on the photo that you can resize by clicking and dragging its edges. Note that Photo Story 3 will keep the cropped photo in a 4:3 "fullscreen" aspect ratio. To move the cropping box, click and drag it.

Next, click the Auto Fix tab. Here, you can correct contrast, color levels, and red-eye for an image, with instant results. Click On or Off for each automated fix and then click Save. These effects only affect the copy of the photo in your slideshow, not the original photo file.

Under the Add Effects tab, you can apply effects such as Sepia and Black And White to the selected photo or all of the photos (click the checkbox for the latter). Click

Save and then Close to exit the Edit Picture panel.

Add Titles

Click Next to progress to the Add A Title To Your Pictures panel. Select a photo to which you want to add text, such as the first picture in the slideshow, and type a title in the field on the right. Click the icons above the text field to change the font and its size and color, as well as to align or center your text. Click Next when you're through.

The Narrate Your Pictures And Customize Motion window comes next. By default, Photo Story 3 automatically cross fades (dissolves) between photos and applies pan and zoom effects to your slideshow. If you want to change this, here's the place to do it.

First, click Preview to see how your slideshow looks with the current settings. You'll probably notice a few zooms that cut off people's heads or ones that seem to home in on the wrong part of a picture. You can correct these on a case-by-case basis.

Select a problem photo and then click Customize Motion. Next, under the Motion And Duration tab, click the checkbox labeled Specify Start And End Position Of Motion. Now resize and/or move the boxes (via click-and-drag) in the Start and End Position areas to tell Photo Story where in the picture you would like the zoom and/or pan to begin and end. If you don't want any motion at all, enlarge the Start and End Position boxes to their maximum sizes.

The Motion and Duration tab lets you adjust how long each picture will be on-screen. There's a similar setting for transition length at the bottom of the Transition tab. The rest of this tab lets you choose among wipe transitions and fade to/from black. If you don't want transitions, uncheck the box labeled Start Current Picture Using A Transition. Click Save when you're satisfied and then Close.

Sound Decisions

If you want to record narration, click the microphone icon. A wizard will appear to help you set up your sound card and mic so you can properly record your voice at a good volume level. Once you're ready, use the Record Narration, Stop Recording, Preview, and Delete Narration buttons.



It's drag-and-drop easy to rearrange the order of the photos in your slideshow.

Click Next, and you'll see the Add Background Music window. Select Music lets you add MP3, WMA, and other audio files. In Create Music, you can whip up instrumental accompaniment based on country, funk, and other genres. Mood and tempo changes are a click away.

Click Preview to check your work. If your music drowns out your narration, use the Volume slider. When you're ready, save your project and click Next.

Seeing Is Believing

Photo Story 3 creates a WMV (Windows Media Video) file of your slideshow, which you can watch on your PC, move to a mobile device, email to someone, etc. (Photo Story 3 can't turn your slideshow into a DVD, but the Burn A DVD sidebar in this article offers tips on how to do this.) The Save Your Story window lets you choose the kind of video file to make with plain-English descriptions. If you want more control over the video attributes, click Settings.

When you're done, click Next, and Photo Story 3 will create the WMV file. Choose View Your Story to see how your slideshow turned out. Finally, click Save Project to save the slideshow to your computer and then click Exit.

Although Photo Story 3 doesn't support the video formats recommended by YouTube, it's still a friendly freebie that handles the basics. With default settings that cover most users' wants, this download is a hidden gem. ■

BY MARTY SEMS

Burn A DVD

To turn your slideshow into a DVD, you'll need a DVD burner and third-party disc-burning software. You'll also need to choose particular settings in Photo Story 3's Save Your Story window.

Select Save Your Story For Playback On Your Computer in the Activities menu and then click Settings. Choose Profile For Creating DVDs – NTSC (640 x 480). Note that Photo Story 3 can only make full-screen (4:3), not widescreen (16:9), videos. Create the WMV video file as directed in "Seeing Is Believing" in the main article.

Next, put a blank DVD-R or DVD+R disc in your DVD burner and launch your

burning software, such as Nero 8 (www.nero.com). In Nero StartSmart, click the fire icon (Launch Nero Applications And Tools) in the lower-left corner, and select Nero Vision. Click Make DVD and DVD-Video, then Close.

Click Add Video Files, then find your WMV slideshow and double-click it. Click More and Video Options if you would like to adjust your DVD's final video and audio settings, then Next. By Menus To Use, select Do Not Create A Menu, then click Next twice.

In the Burn Options panel, click Burn To and choose your DVD drive. Finally, click Burn. ■



Windows Vista

Protect Your OS With Windows Update

As many computer users have discovered the hard way, it's a harsh world out there on the Internet. It seems as if there's a daily warning from the press about a new security issue that threatens to turn your computer into a smoldering pile of plastic and silicon or a piece of malware that will transfer all of your retirement funds to an offshore bank. And despite this all too prevalent hyperbole, your computer *is* at risk if you don't keep it up-to-date.

Fortunately, Microsoft has an excellent tool to help you keep Windows up-to-date, aptly named Windows Update. To start this tool, click the Start orb, All Programs, and then click Windows Update.

What's New In Windows Update

With the arrival of Windows Vista, Microsoft decided it was time to spruce up Windows Update. Where the Windows Update included with Windows XP was a spartan tool, the new version has a revamped look and, more importantly, more features. One of these features is View Update History, which is a log of the updates you installed (as well as the ones that you unsuccessfully tried to install). This can be invaluable when trying to determine which update failed.

Microsoft also changed the frequency of updates issued in an effort to make it easier on users. Instead of releasing updates in a piecemeal fashion, Microsoft now releases updates on the second Tuesday of each month. Dubbed "Patch Tuesday," these releases help minimize how often you have

to update and restart your computer. However, when Microsoft has an urgent security update, it will release the patch immediately.

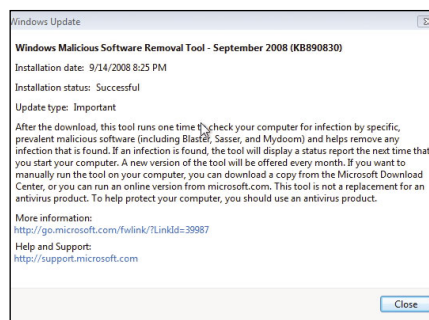
Why Use Windows Update?

The primary reason to use Windows Update is to keep your computer as secure as possible. Numerous studies have shown that an unpatched Windows computer is easy prey on the Internet. A secondary reason is to improve the stability and performance of Windows. To make it easier to evaluate updates, Microsoft categorizes its updates delivered by Windows Update as Optional, Recommended, or Important. It provides all three update types free of charge.

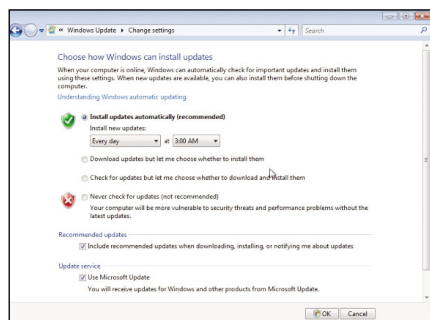
Optional updates often include trial or evaluation copies of Microsoft software or device drivers from software vendors who have partnered with Microsoft. Configuring Windows Update to retrieve and install Optional updates will not do a sufficient job of protecting your computer.

Microsoft's Recommended Updates are a step up from Optional updates and are intended to add or improve the functionality of Windows and to improve its stability and reliability. These updates often fix "bugs," or software errors that have slipped through Microsoft's quality assurance testing.

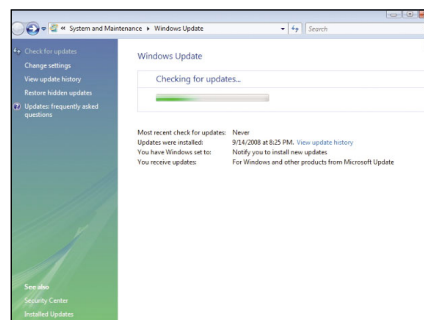
The final category of updates is Important updates. Updates classified as Important are primarily security updates. In addition to security updates, Microsoft includes reliability updates, as well as software to insure that your copy of Windows is legitimate.



Windows Update provides detailed information about each update you download.



Configure Windows Update to do the work for you automatically.



The Windows Update pane will show you update information at a glance.

Enabling Windows Update

If Windows Update wasn't enabled when you started your computer for the first time, enabling it is easy. Start by opening Windows Update. (Click the Start orb, All Programs, and then click Windows Update.) Within this window, you'll be able to see how Windows Update is configured.

To change the Windows Update configuration, click Change Settings from the left pane. Now you have to decide how, if, and when Windows Update should handle new updates.

Our (and Microsoft's) recommendation is to select the first option, which is Install Updates Automatically. It's all too easy to delay installing a crucial update, especially when you're in the midst of an important task. By setting Windows Update to automatically download and install updates, you're simply "setting and forgetting" one of the more tedious Windows maintenance tasks. Be sure to select a time when your computer will be turned on—otherwise the update check won't run.

We also recommend marking the checkbox for Recommended Updates. There's no checkbox for optional updates. When optional updates are available, Windows Update will notify you, and you can select those you wish to install. Finally, click OK. Click Continue if Vista's User Account Control prompts you for permission to make the changes.

When Good Updates Go Bad

Although Windows Update has gone through Microsoft's rigorous quality control and testing, it sometimes has hiccups. The problems you may experience range from updates that won't install, updates that install partially, to updates that can't be downloaded. Windows Update includes an update history tool that you can access to see the status of all your updates. To view your update history, click Start, Control Panel, Security, and then Windows Update. Select View Update from the left pane and you'll be presented with a complete listing of all updates, whether they were successful or not.

If the status on an update is marked "Failed," double-click the name of the update to see a detailed explanation of the goal of the update, as well as an error code. Next to the error code is a Get Help With This Error link that will take you to a troubleshooting help page. You can also search Microsoft's Web site for information on the error code.

Microsoft Update vs. Windows Update

Windows Update does an excellent job of keeping Windows Vista in top condition, but what about all the applications you use on a daily basis? Over the years there have been numerous security issues with Microsoft's Office suite and other Microsoft applications. Keeping them up-to-date used to mean visiting numerous Web pages on Microsoft's site, hoping that you didn't miss an important update. Luckily, those days are long gone. Microsoft's solution is Microsoft Update. Think of it as your one-stop shop for all of Microsoft's updates.

Microsoft Update is Windows Update on steroids. When you enable Microsoft Update, it modifies Windows Update. The next time Windows Update runs, it'll scan your system, determine which Microsoft applications you have installed, and then download the appropriate updates.

Enabling Microsoft Update only takes a moment. Click Start, All Programs, and then click Windows Update. Select Change Settings and then, underneath Update Service, mark the checkbox labeled Use Microsoft Update. Finally, click OK. Vista users have Microsoft Update preinstalled, patiently waiting for you to enable it. If you're still using Windows XP, you can visit update.microsoft.com/microsoftupdate to download the installer. ■

What's In A Name?

Microsoft refers to application changes as "updates." Yet news sites and users frequently refer to them as "patches" or even "bug fixes." In reality there's no difference: The names all refer to the same application changes. Although Microsoft sometimes adds new features via updates, the important updates typically address a design flaw that affects the security or stability of Windows. ■

Ignoring Updates

Not all updates are necessary. If you configure Windows Update to prompt you before installing an update, you may find there are updates that are unnecessary. In this case, Windows Update will dutifully remind you that the updates are available for installation unless you hide the update from view. To hide an update, simply uncheck it from the list of available updates. You'll be given an option to stop notification for that update.

Peace Of Mind

Over the years, Microsoft has taken its lumps when it came to security. Many of the lessons learned have been incorporated into Vista, and the result is arguably the most secure version of Windows to date. The best benefit of using Windows Update isn't a stable, secure computer; it's the peace of mind that comes with having a stable, secure computer. Making Windows Update manage the drudgery of computer maintenance will give you more time to use your computer for fun tasks. ■

BY CHRIS JACKSON

DTV Deadline

Are You Ready For The Digital Conversion?

Do you know how the DTV (digital TV) transition will affect you? Whether you've been ready for months or you know you'll be buying a converter at the very last minute, the final analog-to-digital transition will occur on Feb. 17. In other words, TV stations will discontinue broadcasting traditional analog television.

It might sound like TV broadcasting as we know it is just "stopping." This is not the case. This conversion is good news for two reasons: It frees up valuable radio frequencies for other technologies, and it lets you view high-quality resolution on your TV.

If you subscribe to cable or satellite service, you probably won't have to worry about the transition. (Feel free to direct specific questions or concerns to your service providers.) Most importantly, the analog-to-digital switch will primarily affect TV watchers using OTA (over-the-air) broadcasts via analog radio waves.

Prepare For The Best

The steps you take to get ready for the DTV transition will depend on what type of TV you own and/or which service you use.

If you have a TV set with a built-in digital tuner, you can continue to enjoy OTA programming after the transition deadline. To keep watching your analog TV, connect to cable or satellite programming through a service provider.

Those who are using an analog television along with "rabbit ears" or a rooftop antenna will need to purchase a digital-to-analog converter box. You can expect to pay anywhere from \$40 to \$70 for a set-top converter box at a local electronics retailer.

To grant the consumer a substantial discount, the NTIA (National Telecommunications and Information Administration) is offering up to two complimentary coupons (per household) valued at \$40 each. These coupons

are only available until March 31 or while supplies last.

There are several methods for requesting a coupon: Apply on the Web at www.dtv2009.gov/ApplyCoupon.aspx; download and then mail or fax the application (click Download App on the right side of page; you'll find the mailing address and fax number listed on the application); or call 1-888-DTV-2009.

If you lose your coupons, the government cannot reissue you new copies. Don't think about trying to buy another coupon elsewhere—it's illegal for anyone other than authorized retailers to sell them. However, the TV Converter Box Coupon Program does permit you to accept coupons from friends, family members, etc.

Running Late

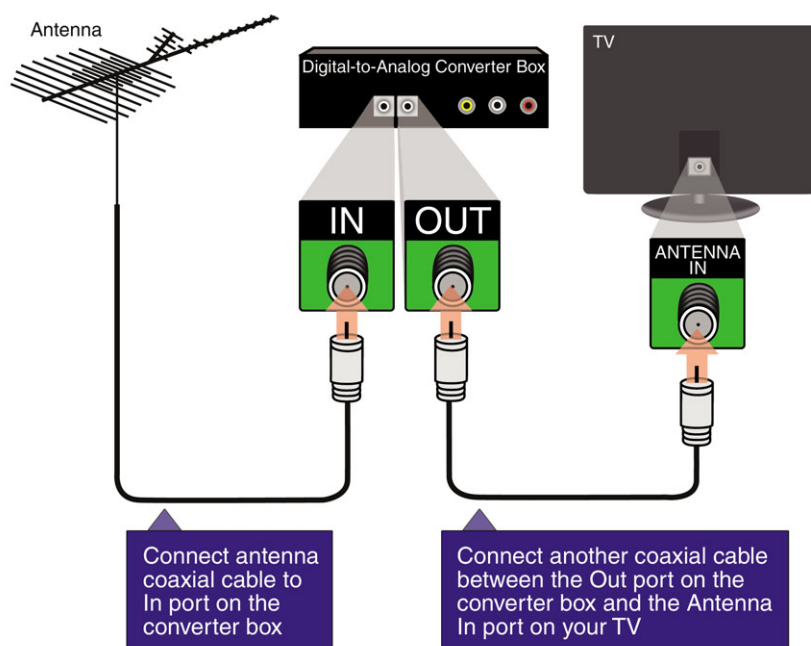
What happens if you miss the Feb. 17 deadline? At the worst, you won't be able to watch any "full-power" TV stations if you own an analog television. This TV deprivation doesn't have to last long, and it doesn't have to happen at all if you follow the steps listed above, of course.

Each coupon expires 90 days after it's been mailed to the recipient. The 17th of February is undoubtedly a big day in TV land, but it isn't the last chance to convert from analog to digital in your household.

Catch Up

In the last two months, we've supplied you with must-know information regarding the DTV transition. Feel free to refresh yourself on those *Smart Computing* tips while you're going through the digital change. Check out "The Big Switch" on page 28 of the December 2008 issue and "Digital Television" located on page 32 in last month's issue. By now, you should be all set for the next phase of television programming. It's time to go digital. ■

BY JOANNA SAFFORD



Leverage Your Assets

Upconvert DVD Players



Some upconvert DVD players produce a more detailed picture than others. Toshiba is on the cutting edge with its XD-E500 (\$149.99; www.tacp.toshiba.com).

DVD was a home run. Everyone wanted it; everyone bought it. Movies, instead of being sold on thick tapes that degraded with every playback and ran the risk of being “eaten” by the player, became available on space-saving discs with a digitally sharp picture and instant access to any chapter. And hey, you didn’t even have to rewind anymore.

Fast-forward to the 21st century. HDTV has usurped regular TV’s throne, ushering in the concept of **high-definition** video. High-def simply means more **pixels** (picture elements) on the screen, which means that the picture can be dramatically sharper. Computer users have known for decades that in order to see more detail on-screen, they could switch to a higher resolution through a graphics setting adjustment and/or a monitor upgrade. An HDTV brings the same benefits to TV watchers.

The trouble is, an HDTV has far more pixels to fill than DVD supplies. DVD was tailor-made for the standard-definition TVs of the mid-1990s. Its digital picture measures 720 horizontal x 480 vertical pixels, which coincides with analog TV’s 480-scan lines-tall image.

An HDTV, on the other hand, is either a 720 model with a 1,280 x 720 (or 1,366 x 768) screen or a 1080 set

with a 1,920 x 1,080 pixel count. Both types of high-def TV have pixels to spare, but the image they display is only as good as the video being fed to them. If the video signal is an unprocessed 720 x 480 resolution, such as DVD, the movie or TV show may look as blocky as an old DOS video game played on your sleek new laptop. The difference between DVD and high-def is as stark as it is between digital TV channels in 480 and 1080 resolutions.

Step It Up

Thankfully, computer and electronics manufacturers have developed ways to **upconvert** (scale up) low-resolution video to look decent on displays with higher pixel counts. More to the point, they have applied such technology to a variety of home electronics so that everyday users can be proud of the way their existing collections of DVDs look on their sharp, new HDTV sets (although no upconversion can quite make your discs match the clarity and sharpness of true high-def content, such as from digital cable or BD [Blu-ray Disc]).

You have several options for upscaling your DVDs (something you don’t need to do if you plan to continue watching a standard TV). One is to buy an HDTV that upconverts

standard-definition video coming in through the specific type of cable your existing DVD player uses; however, this feature often is limited to HDMI (High Definition Multimedia Interface) cable input. Another is to invest in an audio receiver with video upconversion; again, your DVD’s video cable type may make or break this option.

Yet another road is to purchase a Blu-ray player that upconverts DVDs. Virtually all do, and they play CDs, too.

Still another option is to buy an upconvert DVD player. For as little as \$49, one of these can make your DVDs look so-so, good, or even great on your HDTV.

Supersize Me

If you have ever used a scanner or printer that could produce images in a high resolution, such as 2,400 x 1,200, but actually had a much lower optical (physical) resolution, such as 600 x 600, you’ve seen the effects of upconversion. Using software algorithms, certain devices can surpass the limits of their imaging mechanisms by upscaling the digital data. A resulting photo or printout may not be as sharp as one produced by a true 2,400 x 1,200 device—which would cost more—but it will be close.

Part of the “magic” of an upconverting player stems from simplifying the video’s path from disc to screen. “The key reason that an upscaling DVD player will look better on any flat panel (than most nonupscalers) is that it has HDMI output,” says Jack Wetherill, research consultant at Futuresource. “This removes digital-to-analog degradation of the signal.” For this and other reasons, most players and HDTVs require you to use an HDMI cable to get the benefits of upconversion.

There’s more to upscaling than keeping the signal path all digital, however. An upconverting video

Whether To Buy

Assuming you own an HDTV, should you buy an upconvert DVD player or a BD player with the same capability? Price is the prime factor in the decision right now, as the “Price Comparisons” sidebar in this article demonstrates. At press time, BD players still cost roughly four times as much as upscaling DVD players.

Another factor is upconversion quality, which varies. “Blu-ray players are coming down in price,” says Steve Wilson, principal analyst of consumer video technologies at ABI Research. “I



Your DVDs may have looked fine on your old TV, but bring home an exquisite HDTV such as the Sony KDL-52XBR7 (\$4,199.99; www.sonymstyle.com), and you’ll appreciate the benefits of upconversion processing.

processor built into the player analyzes the curves and lines of the objects depicted in a frame of video. Next it smoothes out their jagged edges by interpolating extra pixels between the pixels present in the source video. The process is somewhat like making a step pyramid of the Mayans look like the relatively smooth-edged pyramids of Egypt by loading each massive step with a slope made of cobblestones.

“To get the full benefit,” Wetherill says, “consumers need to ensure that their player is set to upscale to the relevant screen resolution of their TV set.” In other words, it’s critical to set your upconvert DVD player to output video at your HDTV’s native resolution, such as 720p.

think [a BD player] would make more sense, although they might not play your standard DVDs as well as a high-end DVD upconverter.”

Some consumers buy entry-level BD players but rely on particularly good upconvert DVD players to get the best picture quality from their standard-def discs. Note that some players only upconvert to 1080i (interlaced), not the superior 1080p (progressive scan) video format. If your HDTV is a 1080p model, be certain that an upconvert player can match it before you buy.

Another thing to consider is your HDTV’s existing capabilities. If you think your DVDs look great even without an upconvert player, your

HDTV is probably upscaling, and you don’t need to buy a new player. Recent TVs even may upconvert as well as or better than respected DVD upconvert players, at least over an HDMI cable connection. Looking ahead, Hitachi is planning to endow its HDTVs with impressive new up-conversion technology.

“The quality of the upscaling itself is likely to tally with the quality of the brand,” Wetherill says. “A rule of thumb is, if your TV is a decent branded device but your upscaling DVD player is a supermarket brand, the TV is likely to do a better job of upscaling. The opposite applies if your DVD upscaler is high-end but your panel is low-end.”

Of course, a BD player does all of the above, but with the important distinction of being able to play razor-sharp Blu-ray movies, too.

“Whatever consumers may have read or heard, the picture offered by Blu-ray is noticeably better than upscalers when viewed on an HD panel of 32 inches or above,” Wetherill says.

How Long Will These Things Be Around?

It’s hard to say how long you’ll see upconverting DVD players on the market (at least ones that don’t play Blu-ray, too). Certainly, high-def is here to stay, and the buying public is catching on to its benefits.

“We expect the whole standard-def [DVD] player market to shrink dramatically, with Blu-ray players out-selling their standard-def counterparts in the U.S. for the first time around 2010,” Wetherill says. “By 2012, assuming prices of hardware and software fall as anticipated, Blu-ray player sales will account for well over 90% of the player market. Again, so much of this is price dependent, but when entry-level BD players fall to below \$100 and then below \$50 people will increasingly see the ‘future proof’ BD player as better value for the money, as it still plays CD and DVD titles.”

On the other hand, DVD won't be fading away anytime soon. "You know, TVs last a long time," Wilson says. "I have a couple of big Sony tube TVs that would probably last another 10, 20 years. I think there's a lot of people that are going to have these TVs around. They may upgrade their main TV at some point, but [for] secondary TVs . . . [they] don't really need to buy an HDTV, and I think they're gonna keep those around. I think the standard tube TVs are going to take a long time to sort of work their way out of people's homes, and DVD players, as long as they're cheaper than Blu-ray players, there's going to be a market for those, small as it may be."

I think five years from now, there will still be upconverting players on the market."

Most users who have bought BD players primarily use them to upconvert DVDs, and will continue to do so until the prices of Blu-ray movies drop a bit. BD movie prices have remained high even as the cost of Blu-ray players has plummeted. (The latter is partly because of Netflix's success in getting Samsung and other CE manufacturers to support its on-demand movie streaming service, Wilson says.)

Prices on DVD players will continue to be lower than BD decks for some time, except for some upconverting players on the very high end. Also, Wetherill and Wilson agree that upconversion will become a standard feature. Already, practically the only DVD players that don't upconvert are either at the very low end of the market, or are portable models with their own screens. In fact, the latter typically *downconvert* DVD video to fit a 480 x 234 LCD.

Bottom Line

In the end, a BD player with DVD upscaling capability is a more forward-looking choice than an upconvert DVD deck. Then again, it's also a significantly pricier one.

Price Comparisons

There's no doubting that BD (Blu-ray Disc) looks sharper than upconverted DVD, but its prices still aren't low enough to convince most mainstream consumers to sign on. BD players have become drastically less expensive, but the costs of Blu-ray movie discs have remained high, for the most part. Prices are from BestBuy.com. ■

	New release movie A	New release movie B	Low-end player w/ upconversion	High-end player*
DVD	\$19.99	\$19.99	\$49.99	\$599.99
BD	\$29.99	\$34.99	\$229.99	\$999.98

* Excluding Denon.



On an HDTV, there's a huge difference in picture quality between DVD (left) and upconverted DVD (center). Depending on the quality of the upconversion technology, however, there may be only a modest to tiny difference in sharpness between upconverted DVD and high-definition video, such as the 1080p picture on a BD (Blu-ray Disc, right). Put another way, upconverted DVD looks like a typical matinee at the mall cinema, whereas BD looks like an art house film with a professional projectionist's hand on the focus ring. ■

"Blu-ray is, in our view, the future for disc-based video delivery, and with continued dramatic reductions in the price of players . . . it will start to become a no-brainer because of all the added benefits (disc capacity, interactivity, and sound/picture quality) as the price differential diminishes," Wetherill says. "Blu-ray is also future-proof in that it is capable of storing and playing back 3D video, which is the next generation of TV viewing."

Still, don't look for BD to ever be as popular as DVD was in its heyday, Wilson says. "The reason for that is there's so many alternate ways to get your content nowadays," he explains, citing video-on-demand, Internet

streaming and downloads, mobile devices, and digital broadcasting. Wilson says that Blu-ray might, at most, sell 75 or 80% of the peak number of DVD players sold.

What might surprise you is the fact that a Sony PlayStation 3 (\$399.99; www.playstation.com) game console may be the best purchase candidate of all. It can play BDs with support for the latest features (such as BD-Live, which allows you to connect the unit to the Internet to download special content), and its DVD upconversion is top-notch. A PS3 just so happens to act as a media extender and play video games, too. ■

BY MARTY SEMS

DIY Project

Archive Your Emails

For many of us, email is one of our most important data resources. Treasured family photos, humorous anecdotes from friends, notes from business associates, and other important missives often arrive via email. Furthermore, many of us rely on the contact databases, email signatures, message-sorting rules, and other peripheral elements managed by an email client. Yet, as much as we rely on this information, many of us also don't back it up effectively.

Even if you routinely save attachments and paste important messages into documents or print them out for archival, and even if you faithfully perform system backups that archive all system folders including email, you may not be safeguarding your email stores sufficiently. Why?

In the first case, saving individual attachments and messages to another location doesn't protect other components of your profile, such as calendar appointments, contacts, and more. In the second case, although a full-system

backup should archive every bit of data stored by your email client, it won't protect you if those stores become corrupted.

Because it stores most of your data in a single file, Microsoft Outlook in particular is notorious for having files become corrupted over time. Programs that extract data from corrupted files are a hit-and-miss proposition. Consequently, for Outlook users in particular, an effective and thorough backup strategy is crucial. For users of Mozilla Thunderbird and Windows Mail (included with Windows Vista), corruption is less likely, but backup is still important.

Ins & Outs Of Inbox Archival

For email backup, there is no one-size-fits-all solution. The best answer depends upon your needs, as well as the email client you use. Several companies offer automated email backup programs. If you don't want the hassle of setting up an email archival system, head to the "Safety Net" sidebar where we discuss some of your options.

With that said, if email is especially important to you, consider using more than one data backup strategy for messages and contacts. In this article, we will discuss Outlook, Thunderbird, and Windows Mail and make a few

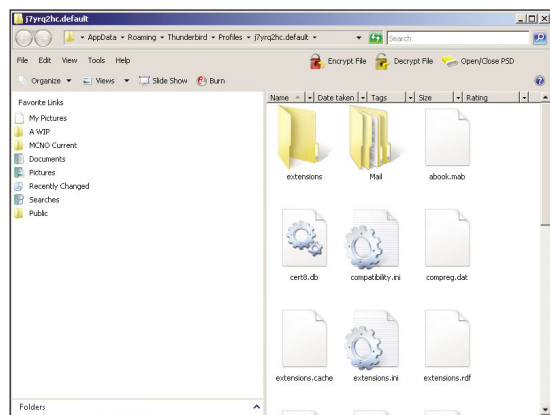
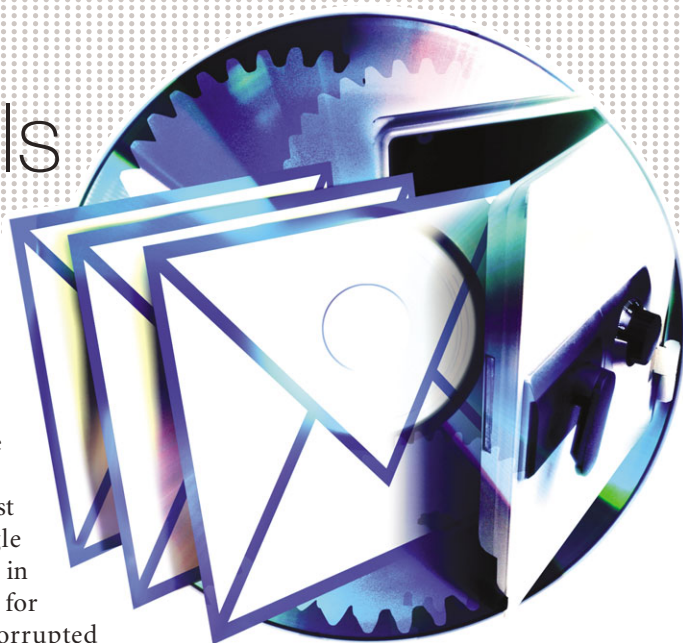
recommendations so that you can select the right email backup strategy for your needs.

Backup Software

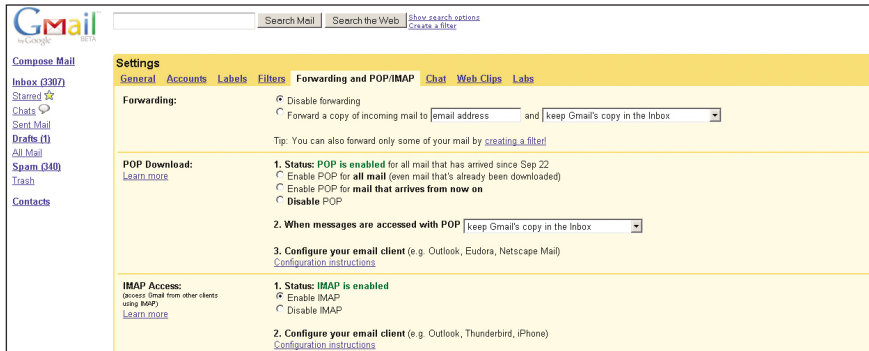
The backup software you currently use may offer email backup. If it does, make sure it can back up and restore your profile and all email elements, not just the messages. Where your email client stores data depends upon the program you use. Thunderbird and Windows Mail helpfully store everything where it is easy to find.

If you use Thunderbird, in Windows Vista, click Start, type %appdata% in the Start Search box, and press ENTER. (Shut down Thunderbird before you begin.) Windows Explorer will return a listing of all folders that contain application data, including preferences, settings, and other related files. Locate and open the Thunderbird folder. Create a backup set for the folder titled Profiles.

For Windows Mail, shut down the program and create a backup set that archives the folder C:\Users\<your username>\AppData\Local\Microsoft\Windows Mail\Local Folders. (Replace <your username> with your actual username.) By default, Windows Mail



Mozilla Thunderbird helpfully stores all your email-related data and settings in one folder.



Google's Gmail and some other free Web-based services let you download messages to your PC and still archive them on the Gmail servers.

stores mail and other account elements here. If you have stationery, you must also back up C:\Users*<your user-name>*\AppData\Local\Microsoft\Windows Mail\Stationery.

Unfortunately, Outlook doesn't store all email-related files together, so you'll have more work to do. For more information, see the sidebar "A Better Outlook" in this article. If you use a different email client than the three covered here, explore the users manual to determine where important elements reside.

No matter which email client you use, if you use a dedicated backup program, we recommend creating a backup just for email data. Because email stores can be corrupted before they stop being functional, the safest bet is to schedule multiple, differently named backups updated with different schedules.

Web Mail It

If you want to back up messages only, a handy solution is Web mail. This is a good secondary backup method for any email client if you are already backing up all email data through another means. It offers the advantage of letting you retrieve individual messages anywhere you have Internet access. This solution works best with Web mail clients that have generous storage allowances. Gmail (www.gmail.com), for example, gives users more than 7GB of storage space per email account—enough for thousands of messages, even with attachments.

The easiest way to use this method is to create a Web-based account and use it as your main email address. Then, you can have the client deliver

email to your PC but retain it on its server. Not all Web mail services offer forwarding to an email program (usually called POP [Post Office Protocol] forwarding), and some charge a fee for that service. Gmail is one email client that offers this service at no charge.

To set it up, open your Gmail account, click Settings, and select Forwarding And POP/IMAP. Enable POP Forwarding and click Configuration Instructions for a tutorial for different email clients. Another option, which syncs your Gmail and PC emails, is IMAP (Internet Message Access Protocol). However, not all users will be able to use this option, so we won't detail it here.

The downside to this solution is that many Web-based email services do not allow the level of organization (such as creating rules that deliver email into specific folders) that you have with dedicated email programs. However, because the Web interface is a backup and not your primary solution, it shouldn't be a major inconvenience.

If you don't want to change email addresses, another option is to have your email client automatically forward your messages to a Web-based account you create. Most email clients have automatic forwarding capabilities. In Outlook, for example, you can establish this by creating a custom rule. Select Rules And Alerts on the Tools menu and then

A Better Outlook

As the big daddy of email clients, Microsoft Outlook is a program that millions of people rely upon both at home and at work. If your company has a secure email backup solution, you probably don't need to worry about messages you send and receive at the office. However, if you send office-related messages from home, you could be placing your employer at risk if you cannot archive and retrieve your email stores.

Outlook is paradoxical in that it stores messages, contacts, and other email elements in a single Personal Folders file (with a file extension .PST) but leaves minor yet crucial components, such as message rules, scattered about in other files. If you back up your PST file but miss these other items, you could be asking for trouble.

Consequently, there is no one-step method to back up short of purchasing a dedicated program. However, in about

15 minutes you can create a backup set that will archive everything. If you're using AutoArchive (described in the main article), you won't need to worry about your PST files. (Optionally, you can search for and back up those, as well.)

Outlook files you may want to back up include rules (.RWZ; not all versions of Outlook use these), nicknames (.NICK; .NK2), Outlook Bar shortcuts (.FAV), stationery (.HTM), signatures (.TXT, .HTM, and .RTF), and templates (.OFT). Many of these should be located in C:\Documents And Settings*<your username>*\Application Data\Microsoft.

Once you locate a folder, you may find that other needed files are there, too. Be careful when searching for signatures, as files with .TXT, .HTM, and .RTF extensions could be many other things. Once you locate the files you are seeking, note their locations and add them to your email backup set. ■

Safety Net

Numerous companies develop dedicated email backup solutions. Two we like come from Amic Utilities (www.amicutilities.com) and StaticBackup (www.staticbackup.com). We selected these in particular because they support multiple email clients and create compressed files that don't hog too much storage space. Despite its very specific name, Amic Utilities' program, Outlook Express Backup Genie 2.0 (\$39.95), supports numerous email clients and has a particularly appealing and easy-to-use interface.

If security is a concern for you, consider StaticBackup's Static Email Backup (\$49.95), which supports eight email clients and both compresses and encrypts the backed-up files. If you only use one email client (including Windows

Mail), you can purchase one of StaticBackups' dedicated utilities for \$24.95.

StaticBackup also offers a freeware backup utility for Outlook Express (among utilities for other email clients), but you'll need to download a Restore Wizard (also free) from the site before you can restore backed-up mail. Microsoft offers a free backup utility for Outlook, but as with the program's built-in functions, AutoArchive and Export, it doesn't back up user settings, rules, and other peripheral elements. Nevertheless, it is easy to use and works as a good folder backup utility if you have the other bases covered. To download it, head to www.microsoft.com/downloads and search for Personal Folders Backup. ■

click New Rule to start the Rules Wizard. You'll need to create two rules: one that checks messages as they arrive and one that checks messages after sending. These options are both available by selecting Start From A Blank Rule.

Depending on which route you take, you may still need to archive emails that predate the solution. You can quickly create a backup Outlook data (PST) file using the information in the next section. However, if you can use IMAP, you can also drag your backed-up Outlook file into the Gmail folder on your PC, and Gmail will sync it to the Google servers, effectively creating a backup.

Built-In Solutions

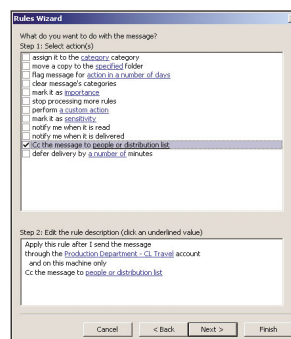
Microsoft's email clients offer native solutions for email data backup. Outlook incorporates an AutoArchive feature that automates folder archival and works beautifully. AutoArchive will copy all items in a folder, which can include messages, contacts, tasks, and other data, to a message store of your choosing. Outlook gives you a handful of options to set, including how often it saves the data and where it will store it. To establish an AutoArchive protocol on a folder-by-folder basis, right-click the folder, select Properties, and click the AutoArchive tab.

Outlook and Windows Mail also offer import and export options (import

is how you restore your data). For users of both programs, these options reside on the File menu. In our example, we provide instructions for Outlook.

Outlook's Import And Export feature cannot be an automated process. However, it has distinct advantages that may make it worth the effort for some people. When you select Import And Export on the File menu and select the Export To A File option, you not only choose the folder to export, but you can also decide what format to use—Outlook's own PST format or something that is universally compatible, such as CSV (Comma Separated Values). If you export to PST format, you can filter the folder by various criteria or fields. This enables you to create an extremely targeted archive. If you export to PST format, be sure that you choose the option that matches your version of Outlook.

If you are a heavy-duty Outlook user who sends and receives a lot of messages, you should export your folders on an occasional basis to guard against corruption. Exporting to a new PST file



Creating Microsoft Outlook rules for incoming and outgoing mail lets you automatically forward (and thereby archive) your emails to a Web-based email account or other Internet storage location.

is reasonably safe, but the most universally recoverable method is to export to Comma Separated Values or Tab Separated Values format. With these formats, you cannot filter messages, but you can map the fields you export.

Thunderbird doesn't offer an easy way to perform these tasks. In order to auto-archive in Thunderbird, you must set up a filter to move messages older

than a certain date, which really isn't worth the trouble. Similarly, Mozilla doesn't recommend a means to export messages. However, Thunderbird's email file format, .MBX, is compatible with many programs and can easily be imported or opened with a text editor.

Sign Off

Effective mail data backup is highly program-dependent and not always as straightforward as it could be. Nevertheless, with a little effort, you can protect your precious email files and settings. ■

BY JENNIFER FARWELL

Many of our readers come across fast, easy ways to solve a problem or accomplish a task. Well, we'd like to hear about it! If you have a great tip you'd like to share, email us at readerstips@smartcomputing.com. If we print your tip, we'll send you a free *Smart Computing* T-shirt. You'll be the envy of all (well, some) of your friends.

Please include your first name, last name, and address, so that we can give you credit if we print your tip. (And so that we can send your T-shirt to you, of course.) Please limit your tip to 200 words or fewer. Not all tips received will be printed, and tips may be edited for length and clarity.

Short & Simple Tips To Make Things Easier

Creative Spellchecking

I lost Microsoft Works when my computer crashed and couldn't get it back because I did not have the product key. Writing a letter and printing an envelope was a breeze using it. I tried a knock-off version of Word, but I found it to be too complicated.

Thanks to a recommendation from *Smart Computing*, I tried Notepad. The only drawback is that it does not have spell check. To solve that problem, I type my letter in Yahoo! Mail and use that program's spell check. When I am done, I highlight the text, select Edit, and then Copy and Paste it on my letterhead in Notepad.



Tony R., Pittsburgh, Pa.

Easy Email Formatting

If you receive an email that's been forwarded numerous times, it often includes formatting marks. When you try to add some text of your own, you may be unable to change either the font, size, or color. Frustrating, isn't it? When forwarding the email, if you select Plain Text from within the email window (the exact location will vary depending on your email program), the HTML (Hypertext Markup Language) formatting will be removed. Next, select Rich Text (probably in the same location). Now, all of the vertical lines of formatting marks are gone, and you will be able to select your own typeface, size, and color for the message you wish to add.

**Richard F.,
Edmonton, Ky.**

Catalog Your Home

Suppose your house burned to the ground, and in the resulting turmoil, your insur-

ance company disagreed with you about the contents of your house or undervalued them or both. How would you respond?

Here's my solution. I took digital photos of all the key things in my house: furniture, artwork, electronics, jewelry, and so on. These picture files were edited down to reasonable size (say, 300KB each). I then imported them into an email and sent them to my Gmail account, which gives me more than 7GB of storage at no charge. Now, my pictures rest safely on Google's server. If ever I have a dispute with my fire insurance carrier, I know just how to solve it.

Terry P., Wolfville, Nova Scotia

Web Site Shortcuts

If you have a Web site that you visit often,



here's how to get to it with one mouse click if you're using Internet Explorer. The site is probably already in your list of Favorites. If so, simply drag and drop the icon from the Favorites drop-down menu to your Desktop. If you prefer to keep a link in both places, go to the Favorites menu, right-click the name of the site, and select Create Shortcut. You can then drag and drop the shortcut to your Desktop. When you want to get to that site, just double-click the icon, and there you are.

Jim H., Normal, Ill.

Quick & Easy Tripod

Can't get your hands on a tripod? Most household lamps with a removable shade (and nut for the shade) will have the same thread as a camera tripod. Try it. Next time you need a tripod, give it a try. You may be pleasantly surprised.

Paul K., Bracebridge, Ontario





Mac Attacks!

Usually in this column, I talk about applications and hardware that I hope Mac users find useful. This month, we're taking a bit of a deviation from the norm to take a look at the proliferation of Mac malware.

For years, Mac users have watched the security train wreck that befalls PCs from a safe distance. Firewalls? Anti-malware? Vulnerabilities in the operating system? These concepts are foreign to those in the Mac camp. And why not? After all, Macs have a stellar record of being virus- and vulnerability-free.

However, in recent years there have been more instances of malware targeted at Macs.

Aren't Macs Immune?

There is some debate as to why exactly Macs have been so virus-free. Some will claim that Macs are designed so well that they are impervious to attack, while others will say that it's simply due to the small market share—meaning that it's not worth a virus-maker's time to create a virus for so few computers when the enormous PC market is ripe for the picking.

Still others feel that because Apple started using Intel chips in Macs, the computers will be more vulnerable to PC-like attacks because people are so familiar with the Intel platform. (I'm going to go out on a limb and suggest that this theory doesn't make a great deal of sense and is likely implausible.)

Whatever the case may be, Mac users have been incredibly fortunate when it comes to threats from malware.

Benign Viruses, Just For Kicks

Some people have created harmless "viruses" just to prove the point that Macs can be infected. Granted, these viruses have not-so-subtle ways of getting on your computer—one charming virus actually has to be installed via a special USB flash drive—but you get the gist. It can be done.

Personally, I find little humor in these benign viruses. It's like a friend breaking into your house in the middle of the night just to prove that it's possible—you're relieved you aren't being robbed, but it's nevertheless extraordinarily disconcerting.

Malware For OSX

Though there are few malware programs aimed at Macs, there are a few we should all be aware of.



Backdoor.Mac.Hovdy.a.

This Trojan horse is apparently designed to test a flaw in the ARDAgent (Apple Remote Desktop Agent). Basically, ARDAgent can run Applescript with root privileges. If a user inadvertently installs this little jasper, the hacker has a back door into the user's system. According to a blog post on blog.washingtonpost.com, you can patch this flaw by opening Terminal and entering the following text:

```
osascript -e 'tell app "ARDAgent" to do shell script
"chmod 0555
/System/Library/CoreServices/RemoteManagement/AR
DAgent.app/Contents/MacOS/ARDAgent"'
```

Keep an eye out for anything resembling AShtvt05 (a compiled AppleScript), or ASht_v06 (an application bundle), as this is most likely how you'll see the Trojan coming.

OSX.Trojan.PokerStealer. Another recently discovered nasty Trojan, this one will steal your username and password and IP (Internet Protocol) addresses. Then the hacker behind it can tear through your computer and even damage the operating system. Fortunately, you can dodge this bullet simply by never downloading anything with the filename PokerGame.app.

Trojan:OSX/DNSChanger. Also known as Trojan:OSX/DNSChanger.A and Trojan:OSX/DNSChanger.C, this Trojan will most likely manifest itself as a fake codec installation when you're trying to view a video. You'll receive a message that you need to get a new version of a codec. Once you click the link and download and install the Trojan, your DNS (Domain Name Server) will point to a malicious Web site. The best protection against this one is vigilance.

Don't Hide Your Mac Under The Mattress

The above is just a sampling of the most recently discovered malware that targets Macs. There are more out there.

Yet there's no need to panic—there are bajillions of viruses aimed at PCs and still only a handful for Macs. But the fact remains that as Macs become more beloved and enjoy increased adoption by masses of consumers, hackers and virus-makers will likely devote more time and attention to finding ways to attack them. They're not invincible. It's time for Mac devotees to be more circumspect about security.

Remember that even the invincible Achilles had that pesky heel. ■

Web Tips

Enhance Your Time Online

Image Dictionary

Problem: I'm a visual learner and need more than a definition to understand certain words.

Solution: You can always go to Merriam-Webster to read the meaning of a word, but now you can interact with that word's visual representation at Visual Dictionary Online from Merriam-Webster (visual.merriam-webster.com).

Search by typing in the Index box or browsing Themes such as Earth (geography, geology, meteorology, environment), Human Being (human body, anatomy, sense organs), and Arts & Architecture (fine arts, graphic arts, performing arts, music, crafts). If you want to hear the correct pronunciation, click the speaker symbol next to a word.

Instructions For Everything

Problem: I love DIY projects, but it's frustrating when I get stumped on one step and can't continue.



Pandora has many extras that will make your Internet radio experience engaging.

Solution: Even though you may want to complete every step of a project without any assistance, you have to admit that reading the instructions can save you time. At Instructables (www.instructables.com), each step includes a photo and detailed instructions. Sign up for a membership, and you can also view each Instructable in PDF (Portable Document Format).

You'll find all types of projects to keep you occupied, from household fix-ups to making cat-powered automatic cat feeders. Click any project thumbnail to get started.

Customized Online Radio

Problem: I want to be able to control every song and station I listen to on Internet radio.

Solution: Pandora Radio (www.pandora.com) is quickly becoming one of the most popular Internet radio sites, now that it's an application for the iPhone and other mobile devices. Pandora's design lets you create your own

music stations by searching for an artist, song, or composer; what's unique is that Pandora will then play music with the same characteristics as your favorite tunes (thanks to The Music Genome Project). Further, Pandora lets you give a "thumbs up" or "thumbs

down" if you love or hate a song it picks for you—this is how you take control of each station you make. Additionally, you can click the forward button (a limited number of times per hour) to immediately listen to the next song.

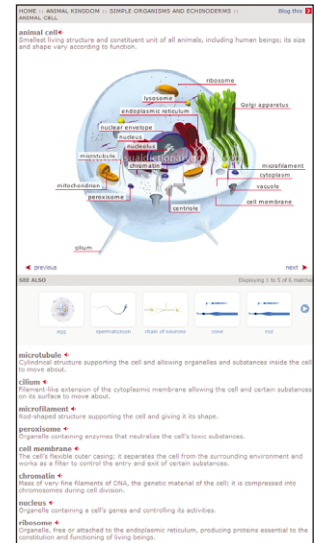
After signing up, you can personalize your profile. When you hear songs you want to remember, click Menu on the song and then Bookmark This Song/Artist to save it for purchase from Amazon or iTunes.

Reveal News Spin

Problem: Sometimes I can't differentiate between the facts in news stories and possibly biased angles.

Solution: Holding that some news sites can be rather one-sided when it comes to some hot-button issues, SpinSpotter (www.spinspotter.com) has devised a tool to extract the spin (as determined by its readers) out of news articles. The Spinoculars toolbar is currently available for the latest version of Firefox. (Support for Internet Explorer 7 is on its way.) The Spinoculars toolbar lets you see other readers' takes on articles in many well-known news sites.

As you become more familiar with SpinSpotter, you'll likely want to create spin markers and let others know when you spot spin on the Web.



Vivid diagrams help you match an image to a definition at Merriam-Webster's Visual Dictionary Online.

Travel Packing List

Problem: I always forget one important item whenever I pack for a trip.

Solution: No matter how many packing lists you might make, you inevitably encounter those moments while sitting on the airplane when you suddenly realize you've forgotten to pack that thing you just can't leave behind. Don't Forget Your Toothbrush (www.dontforgetyourtoothbrush.com) is one Web site that will help you avoid forgetting the essentials.

Members can choose from specific trip lists such as Beach Holiday, Foreign Driving Holiday, and Cruising; each offers a planning list (for checking off the advance "to-dos") and a packing list. To customize your list, select the boxes you would like to print. ■

BY JOANNA SAFFORD

Find It Online

Pass The Time With A New Game



Dailygames.com

www.dailygames.com

This Web site features hundreds of games that you can choose from and play in a few minutes each day. There are several categories of games, such as Action, Strategy, and Board Games, and new games are added daily. You can browse game titles by selecting a category, by entering the name of the game in the Search Games field, or by perusing the Top Games list found on the right sidebar. In order to enjoy the game, however, you'll need to have Adobe Flash Player, Adobe Shockwave Player, and Java installed on your computer. If you don't have these, you can use the site's handy links directing you to each player's download page.

Orisinal

www.ferryhalim.com/orisinal

Ferry Halim is the creator of the games you will find on this site. You can choose from 60 free games to play, and check back regularly for Halim's new games. Each game features a simple objective, such as clicking as many items as possible in a set amount of time or jumping and balancing on a number of different platforms. Although the goals of each game are relatively simple, the games are addicting. One of our favorite games is Winterbells, in which you help a bunny jump on bells in the sky. Each time you jump on a bell, you acquire more points while being propelled higher and higher.

FreeWebArcade

www.freewebarcade.com

This site features some of the most popular classic games, such as Tetris, Duck Hunt, and Donkey Kong. There are also

hundreds of newer games, such as Line Rider and Alien Hominid. There are nearly 4,000 games that you can try. Simply choose a game by searching for a specific game with the Search Games tool or browsing the categories, such as Puzzle or Arcade Classics. On the right sidebar, you can see newly added games and Top Games, which are the games that are most frequently played.

FunBrain.com

www.funbrain.com

Although many of the game sites we've listed are suitable for children, this site is made especially with kids in mind. Click the Arcade link at the top of the page to play a board game with several minigames, such as Penguin Drop, where players must defend their iceberg from paratrooping penguins looking for a landing spot. This site also features other kid-friendly media, such as Web books and comics. There are also Funblogs for both girls and boys of different ages, which list news stories and facts that your kids will find interesting.

Puzzlers' Cave

www.puzzlerscave.com

This site is perfect for the puzzle-game enthusiast who likes to spend time completing crossword puzzles or sudoku charts. Each day, the site will have a new crossword puzzle or sudoku game to complete. The puzzles are created by the site's members, and you can create puzzles to share with others using the Puzzlers' Cave Crossword Compiler. The basic version can be downloaded free from the site by clicking the Software link at the top of the page. If you have trouble completing a crossword puzzle, you can click the Reveal Letter or Reveal

Word clues located at the bottom of each puzzle.

Dailywordsearch.com

www.dailywordsearch.com

If you are addicted to word searches, you'll spend plenty of time at this site. Each day, there is a new word search puzzle to solve. When you find one of the listed words, simply click the first letter and drag your mouse pointer over the rest of the word to highlight the discovered word. If you click Play It Now under Tournament and enter your name and age, your timed score will be recorded for others to see and compete against. You can even create your own word searches to share with the site's members by clicking Submit Your Own on the left sidebar.

JigZone.com

www.jigzone.com

If you love assembling jigsaw puzzles but don't have the space to lay out all the pieces, check out this site. You can use your mouse pointer to drag, drop, and build hundreds of puzzles. Start a puzzle by choosing a category from the Puzzle Gallery, such as Animals, Flowers & Gardens, or Nature Scenes. You can specify the difficulty of the puzzle by choosing how many pieces the puzzle will be, from six pieces to 247 pieces. You can also upload your own photos to make puzzles that you can share with other JigZone members.

That's News To You

Finding the appropriate online group to match your interests can be a monumental task. So each month, we scour the Internet to bring you the friendliest forums and most interesting bloggers the Web has to offer. This month, we share the thoughts and stories of fellow puzzle gamers as they work their way through some of the toughest puzzles.

Rex Parker Does The NYT Crossword Puzzle

www.rexwordpuzzle.blogspot.com

The New York Times crossword puzzle is oftentimes a challenge. This blog will answer that tough 14 Across while adding some extra informative flair.



Rex Parker, the blog's creator, focuses on the themes of the crossword puzzles and includes facts, pictures, videos, and stories along with the answers. With all this extra information, your crosswords become more than just a fun pastime; they become an educational activity, too.

An All-Purpose Puzzle Blog

www.puzzlinks.com

This blog features tons of information about puzzle events, competitions, and puzzle commentary. Most of the posts are short and to-the-point, making this blog fun to read, especially when Josh, the blog's writer, includes links to new puzzle games that he's heard about. The site also includes several links to puzzle sites that you'll want to check out for new and exciting games. ■

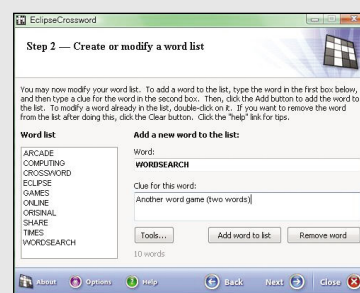
Share The Wares

Some of the best apples in the online orchard are the free (or free to try) programs available for download. Each month, we feature highlights from our pickings. This month, we take a look at tools to help you make your very own crossword puzzles and jigsaw puzzles.

EclipseCrossword

www.eclipsescrossword.com

Your family reunion is just around the corner, and you've been assigned the task of providing games for your relatives to play. Impress your family with a unique and personal activity by creating your own crossword puzzle about your family's heritage. With this free software, you can form crossword puzzles in minutes. Simply create a new crossword puzzle, type in the word list and clues, and select how large you'd like your crossword to be. The software will automatically arrange the words in your crossword. You can also add a title to the crossword and put your name on the puzzle so others will know that you created it. When you're finished, you can print the crossword, save it to a Web page, or publish your crossword to other programs such as Microsoft Word. To download the software, click the Download tab at the top of the page and choose I Am Downloading EclipseCrossword For The First Time. On the next page, click Download EclipseCrossword and save the file to your hard drive.



Creating a crossword is easy with EclipseCrossword. Type a word, create a clue, and add the word to your list. Once you have all your words and clues entered, the program will create a crossword layout for you.

Jigsaw Puzzle Creator 2.0.1

www.puzzlecreator.com

If you're looking for a fun new way to share your favorite photos with friends and family, check out Jigsaw Puzzle Creator, which lets you transform your digital pictures into jigsaw puzzle pieces. This free-to-try software (the full version is \$29.95) is easy to use. Start a new project, choose the picture or pictures you want to puzzle, and choose the difficulty level by selecting how many pieces the puzzle will be. You can select a number of other options, such as background and sound, too. You can play the puzzle from within the program by dragging, dropping, and right-clicking each puzzle piece to move and rotate them. With the full version of the software, you can also make your puzzle into an executable file, which then lets you share your puzzles with friends and family who may not have the software. ■

eMusic To The Ears

Independent & Inexpensive Music Downloads



Today, there are any number of online retailers that you can steer your Web browser to and buy (and download) digital music from, including Apple's iTunes (www.itunes.com), Amazon.com's MP3 Downloads (www.amazon.com), Wal-Mart's MP3 Music Downloads (www.walmart.com), Rhapsody's MP3 Store (www.rhapsody.com), BestBuy.com's Digital Music Store (www.bestbuy.com), and Microsoft's

DRM (digital rights management)-free, pay-and-keep-forever subscription model that offers an interesting alternative to the various approaches its competitors offer.

eMusic also differs from the majority of online music retailers in that it places a strong emphasis on promoting and selling music from independent music labels and artists. Further, the company aims its content at music- and book-lovers in the "underserved" 25- to 54-year-old demographic. eMusic states that its unique subscription approach allows its customers to buy downloadable music for substantially less than at other download services. If you have a penchant for exploring new music from new artists across diverse musical genres, eMusic is definitely worth investigating. As eMusic aptly puts it, "Most other digital music services only promote today's top major label hits and neglect the thousands of great independent albums that are released each year."

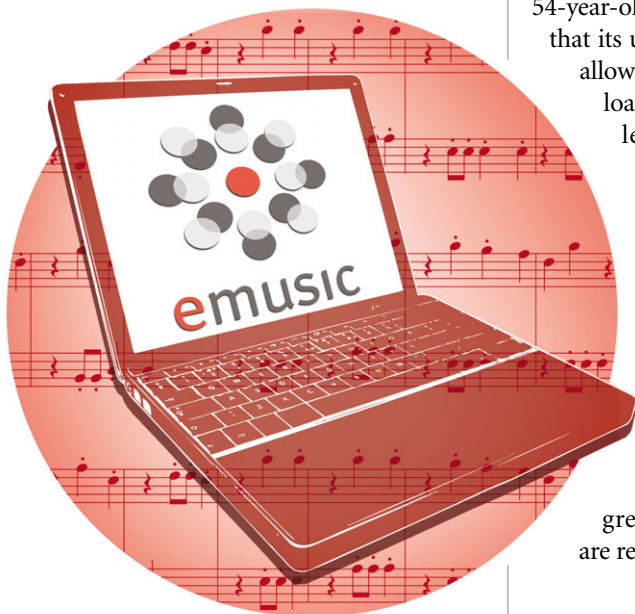
In The Beginning

Founded in 1998 and originally known as GoodNoise, eMusic was one of the earliest adopters of selling music downloads in the MP3 format, meaning songs purchased from the company will play on any DAP (digital audio player), including Apple's iPods. In 1999, the company took on the eMusic moniker, and in 2000, the company became the

first to launch a digital music subscription service. eMusic moved to its current subscription model in 2003 and has since sold more than 250 million downloads and touts a current subscriber base of more than 400,000 users. (eMusic also claims it was the first company to sell audio books in the MP3 format beginning in 2007. The company now has an audio book catalog that approaches 5,000 fiction and nonfiction titles.)

Today, eMusic has operations in North America and dozens of European countries and, depending on the source, is considered the second-largest music service next to Apple's iTunes store (which stated in June 2008 it sold its 5 billionth download since the store's 2003 launch). Although eMusic shies away from selling music from artists signed to major record labels, the company still manages to offer a massive catalog of more than 4.5 million songs from more than 40,000 independent music labels to explore. Purchased songs download as 192Kbps (kilobits per second) MP3 files that users can copy to an unlimited number of computers, as well as burn to unlimited CDs/DVDs, without restrictions, as is the case with some online retailers. (eMusic's audio books download as 64Kbps MP3 files.)

Cathy Halgas Nevins, eMusic vice president of corporate communications, says eMusic's philosophy of selling MP3s that are free of DRM protection is based on consumers wanting to "play their music on any device they choose." She adds that "the MP3 format is universally compatible and plays on every MP3 player and literally thousands of devices. eMusic was the first company to show the music industry that a significant business could be built selling MP3s. Our success is undeniable with the millions of customers we've served." Halgas Nevins says that "independent labels were also the first to adopt the DRM-free MP3 format," and eMusic "supports independent labels as part of our mission to offer our customers exciting, quality entertainment."



Zune Marketplace (www.zune.com). Another major player in the digital music download space that you may have overlooked until now, however, is eMusic (www.emusic.com). In business since the late 1990s, eMusic is not only one of the most well-established sellers of digital music downloads, it's also one of the most unique, using a distinctive

Pay The eMusic Way

No matter your taste in music, you'll likely be able to find tunes to match your preferences at eMusic, which sells tracks organized in 12 musical genres, including Blues, Classical, Rock/Pop, Country/Folk, Jazz, Spiritual, and New Age. Conveniently, eMusic also organizes its music catalog by the decade songs were released, Featured Regions, Rated By Members (one to five stars), Editor's Picks, New This Week/Month, Live Albums, Artists, Albums, Record Labels, Conductors, Choirs, Free Tracks, and several other categories. To assist customers with downloading tracks from the Web site to a computer, eMusic provides a Download Manager that includes automatic syncing abilities with Windows Media Player, iTunes, and other media manager programs.

"eMusic offers a superior music-discovery experience and the best digital music value," says Halgas Nevins. "We start by providing personalized music recommendations and award-winning editorial created by a staff of more than 200 of the best music and book journalists throughout the world." The company also recently unveiled several new design touches to its Web site, as well as new social-networking and Web 2.0 features, including the integration of YouTube, Flickr, and Wikipedia content on artist pages and links to such blogging, bookmarking, and networking services as Twitter, Digg, and Facebook.

Despite eMusic's ample features, the company's most appealing characteristic is arguably its subscription plans, which can put downloads at as little as 25 cents per track on average. The Basic eMusic subscription plan is \$11.99 per month and includes 30 downloads (40 cents per song) per month that the buyer can keep forever. Other plans include Plus, \$14.99 per month for 50 downloads (30 cents per track), and Premium, \$19.99 per month for 75 downloads (27 cents per song). Three Connoisseur plans starting at \$24.95 per month for 100 downloads (25 cents per song) are also available for existing

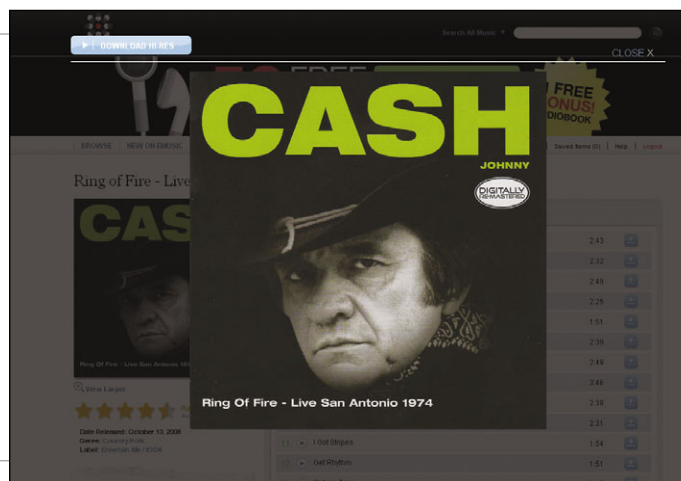
subscribers. Any new subscription plan comes with 50 free downloads during the plan's first month. eMusic's audio book subscription plans, meanwhile, include a Basic option (\$9.99 a month for one audio book credit) and a Plus plan (\$19.99 a month for two credits).

Although eMusic's subscription plans don't allow users to carry over downloads from month to month, customers can cancel a plan at any time. Further, eMusic also offers a Booster Pack option for situations when a subscriber taps out her monthly download quota but wants to make a one-time purchase of songs beyond a subscription plan's limit. Booster Packs for music purchases are available in increments of 10, 30,

online that's suitable for printing (1,400 x 1,400 pixels) and turning into CD covers, to a monthly newsletter, to written content from columnists and reviewers. Two other particularly good features include 17dots.com, an unofficial music and technology blog that eMusic employees maintain, and an eMusic Discovery Toolbar that's downloadable at tinyurl.com/6y7sv6.

In addition to providing access to a free song download every day, the Discovery Toolbar, which installs to a Web browser, includes a Google-powered Web search engine; integration with several Web-based email programs; access to online radio stations; an Album Review Of The Day; eMusic Dozens, a

Among the features available on eMusic's Web site is the ability to print 1,400- x 1,400-pixel images of album artwork that's suitable for creating CD covers.



and 50 downloads, while Audiobook Booster Pack options come in increments of one and five book credits. Overall, Halgas Nevins says, the affordability that eMusic's subscription plans provide encourages subscribers to sample music from new artists. As a result, she says, eMusic's customers purchase more music—typically more than 20 audio downloads a month compared to one or two tracks a month that iTunes users purchase on average.

Behind The Music

To enhance its music offerings, eMusic provides subscribers with numerous nice touches that include everything from providing album artwork

continuously updated collection of eMusic's best 12 albums in a given theme as selected by eMusic editors; Power Charts; a weather applet; various gadgets (Sudoku, Calculator, ToDo, etc.); and an RSS utility that alerts users to new songs and other info at eMusic.

Halgas Nevins says new features combined with its established options will "further our mission to provide more musical context than our competitors and respond to the ways in which consumer music discovery behavior has changed with the popularity of social networking sites, blogs, and simply the vast amount of information available on the Web." ■

BY BLAINE FLAMIC

Tempting Time-Wasters

In last October's column, I presented my Top Ten Addictive Online games and concluded with an invitation for you to share your favorite online addictions—well, games-related. At great personal sacrifice, I tested each of the more than 150 submissions I received, as my rehabilitation therapist at iHab will attest. To qualify for inclusion in this month's column, games must be free, be Web-based, require no additional software (other than Flash), be nonviolent, and be G-rated. For your addictive mousing pleasure, I hereby present (in alphabetical order) my favorite Addictive Online Games, selected from your submissions:

Bloxorz (tinyurl.com/3u98md). The objective is to get the block to fall into the square hole at the end of each stage. There are only 33 stages to complete. The accompanying audio is kind of spooky, so easily frightened individuals should proceed with caution.

Bubbles (tinyurl.com/45toov). Your mission, should you choose to accept it, is to remove all the dots from the board by clicking dots that are next to, above, or below a dot of the same color. The more dots you remove with one click, the more points you earn.

Carline (tinyurl.com/47dtn9). Arguably one of the most moronic games in the history of gamedom, I was nevertheless drawn to it like a dim-witted moth to an artificial flame. Using your mouse, draw a path from the car to a parking spot. The objective is to navigate the car into the spot at a speed so slow that it would test the patience of even the most sluggish of mollusks. Carline is unbelievably tedious, excruciatingly slow, but inexplicably compelling in an I-hope-nobody-sees-me kind of way.

Color Test (www.njagyouth.org/colortest.swf). Eight screens are presented, each displaying a word and two buttons. Select the color of the word displayed, not the word itself. You have four seconds within which to make a correct decision. Sounds easy, doesn't it? "Step up to the screen, my pretties," cackled the wicked columnist, as he rubbed his hands together with gleeful anticipation.

Curveball (tinyurl.com/y769rz). If you're seeking a three-dimensional cerebral exerciser—and who among us isn't—you won't want to miss this. Click Start Game and then left-click to serve the ball. Using your mouse pointer as a paddle, return the ball in racquetball fashion. Don't be lulled into a false sense of smugness by wimpy Level 1 play. I became woozy at Level 2 and lost consciousness at Level 3. Whew!

Fantastic Contraption (fantasticcontraption.com). This contains a series of puzzles, all with the seemingly simple

objective of moving an object from one place to another. This is accomplished by constructing contraptions that obey the laws of physics as they move. It's challenging, educational, and encourages creative, outside-the-box thinking. Yes, it was quite humiliating.

Hangman (tinyurl.com/98mwx). This childhood classic presents an opportunity to squander precious time under the pretense of self-improvement. Use Internet Explorer for this one.

How Old is Your Brain? (tinyurl.com/yvq36y). Don't be concerned that this site is in Japanese; instead, click Start, then wait for the 3, 2, 1 countdown. Quickly memorize the number positions displayed on-screen and then click the blank circles that appear in the same positions, moving from the smallest

number to the largest. After 10 sequences have been completed, it will reveal how old your brain is. (Pray for double-digits.)

Mini-Putt (tinyurl.com/kp8sr). A golf addict's delight. Place your ball on the green and then aim your shot by moving your cursor away from the direction you wish to shoot. A yellow, dotted guideline will display your proposed trajectory. The longer the line, the more powerful the shot. Once you've aligned your shot, click the left mouse button to putt. "Way to go there, Tiger!"

Letter Lasso (tinyurl.com/6e78ua). Think of this as a Jumble on steroids. You'll be assigned the word you need to find, and then with the clock running, the challenge is to locate it within a square containing 100 letters. When you find it, use your mouse to "lasso" the word and then go on to the next word.

Web Boggle (tinyurl.com/5xgwvy). Click Start Game, and you'll have three minutes to find as many words as you can in a grid of 16 letters. Although you are playing solo, at the end of each competition you can compare your score to other individuals who are also frittering away their lives playing Web Boggle.

My personal thanks to each of you who submitted your favorite online addictive games. ■

BY MR. MODEM

Mr. Modem, (Richard Sherman) is an author, syndicated columnist, radio host, and publisher. "Mr. Modem's Weekly Newsletter" provides personal responses to subscribers' computer and Internet questions, plus weekly computing tips, Web site recommendations, virus alerts, hoax warnings, and more. For additional information, visit www.MrModem.com.

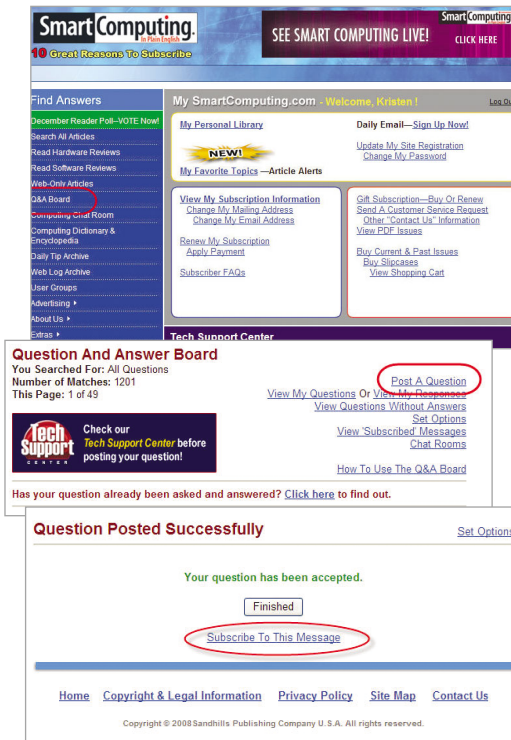
Q&A Board

Computers are great when they're running properly. But when you have a computing problem, finding answers can be frustrating. So if you're having trouble with Windows XP or can't find a solution to a computing question or problem, consult the Smart Computing Q&A Board. This subscriber-only feature is a great resource for getting quick and helpful responses to your computing problems.

Before posting a question on the Q&A Board, be sure to check out the Tech Support Center and all of its extensive, helpful resources, including an error message search, solutions knowledgebase, and troubleshooting articles.

It may also be helpful to utilize the Q&A Board search at the bottom of the page, because, most likely, someone has had the same tech woes that you are experiencing. You can search by message number or keyword ("Windows XP," for example) and sort your results by relevance or a specific date range to make finding answers quick and easy.

1. Log on to SmartComputing.com and click on the Q&A Board link.
2. To ask your question, click the Post A Question link in the upper right of the page. (Make sure you are logged in to the site.)
3. Use the Subscribe To This Message link at the bottom of the question to be notified via email when answers are posted.



Love Is In The Online Air

According to Hitwise (www.hitwise.com), visits to online dating sites increased 26% in the first week of February 2008 compared to the previous year.

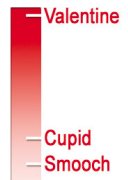
Singlesnet (www.singlesnet.com) was the most-visited dating site during that same time period.



Love-O-Meter

To see just how sentimental *Smart Computing* is, we did a search of Valentine's Day-related terms at www.smartcomputing.com.

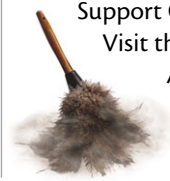
"Valentine" occurred about 77 times, "cupid" made four appearances, and "smooch" only came up twice.



Computer Care

Keep your computer in tip-top shape with the info at our Tech Support Center.

Visit the Preventive And Regular Maintenance section for helpful tips on essential upkeep.



Smart Computing's Fun Site Of The Day (Dec. 4, 2008)

Snowflake Maker

If there aren't already enough snowflakes outside your window, make your own at this site. You just add lines and dots to a circle, which automatically creates a symmetrical pattern in the circle. When you've added significant enough detail, click 2D Rotate and watch the patterns change. If you like what you see, just click Still to freeze it. You can do the same in 3D—it's really cool to see!

www.zefrank.com/snowflake



Troubleshoot Windows

Put Your PC In Drydock



56 Pick Up The Pieces
Solve Tough Windows Problems

60 Browsing For A Solution?
Solve Problems With Internet Explorer

63 Don't Shoot The Messenger
Solve Email Problems

66 Windows Media Mayhem
Solve Problems With Media Player & Media Center

69 Rough Around The Edges
Solve Problems With Peripherals

Impeccable security. Flawless stability. Trouble-free operation, 24/7. Sure, you can get all this from Windows—but only if you turn your computer off and never use it again.

OK, we kid. No operating system is perfect, and yes, that includes Mac OS X and Linux. Still, for one reason or another—or, more precisely, several reasons all at once—it's fair to say that Windows seems to generate the most need for troubleshooting help.

Even Windows Vista, for all its genuine improvements in security (some of which aren't even irritating), still gives users bouts of frustration once in a while. To be fair, third-party drivers and applications have certainly contributed to Vista's problems. Early Nvidia graphics drivers, sound card drivers, and security utilities have sent many a Vista user in search of assistance over the past couple years. On the other hand, most of the incompatibilities stemmed from the fact that in Vista, Microsoft made radical changes to the way graphics, sound, and user privileges worked as compared to in earlier

versions of Windows. As for the lack of drivers for aging scanners and printers (Vista actually has significantly more built-in drivers than any other version of Windows before it), well, perhaps that question may be better directed at peripheral vendors who feel more inclined to sell you their latest models.

Fortunately, *Smart Computing* is here to help. We share your pain, because we use Windows, too. And as we come up with solutions to problems, we pass them along to you.

Another stroke of luck is the fact that there are many quick fixes for Windows problems. The trick is to find out what needs to be done. That's what this month's Feature Package section is all about: solving Windows Problems.

In the next few articles, we'll talk about troubleshooting various applications incorporated into recent Microsoft OSes (operating systems), such as the Internet Explorer browser, the Outlook and Windows Mail email clients, and audiovisual applications such as Windows Media Player and Media Center. We'll also delve into the



conundra posed by recalcitrant peripherals from time to time.

We'll present our tips in an easy-to-understand, plain-English format. We'll lead off with an error message taken verbatim from the screen to make it easier for you to find an answer, should you encounter the same problem. When the trouble is more of a situation than a specific error, we'll describe the problem in a straightforward way.

Next, we'll follow up with details about what the error message means, along with the circumstances under which you might encounter it. Finally,

we'll end with one or more possible resolutions to each problem. Every situation is different, of course, and there are often multiple causes of any particular problem or error, but we'll do our best to provide troubleshooting advice that covers the majority of users' needs.

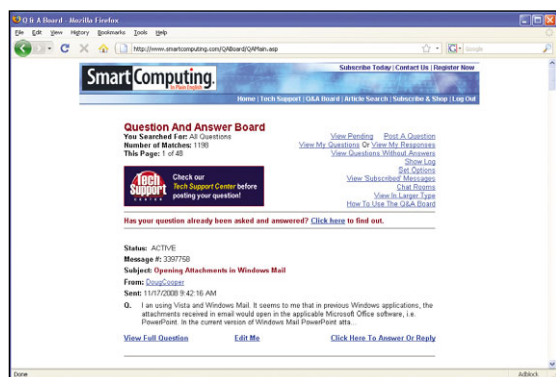
Speaking of advice, we should take a moment to mention that many of the problems and solutions presented in the following articles came directly from an extremely useful service that's included with every subscription to *Smart Computing*: our toll-free Tech Support. Subscribers can dial (800) 368-8304 during business hours (8 a.m. to 8 p.m. Central time, Monday through Friday) and talk to a dedicated, professional technical support representative based in the United

States. Our support reps will do their best to investigate and solve your computer trouble, even "dialing into" your PC (with your permission) as the situation merits. For more information on *Smart Computing* Tech Support, visit www.smartcomputing.com and then click the Tech Support Center link.

Another free service included with every subscription is access to *Smart Computing*'s Q&A Board (available from SmartComputing.com's main page). Here, you'll find a thriving community of users just like yourself, all willing to pitch in when a fellow subscriber has a PC problem. Of course, you'll also have full access to online back issues of *Smart Computing*, as well as its sister publications *PC Today*, *Computer Power User*, and more.

The bottom line is: If you have a Windows problem, chances are we can help. As more of us start thinking in terms of repairing our PCs instead of replacing them, isn't it nice to have support you can count on? ■

BY MARTY SEMS



On *Smart Computing*'s Q&A Board, knowledgeable readers can help you figure out PC problems. Feel free to lend someone else a hand, too.



Pick Up The Pieces

Solve Tough Windows Problems

When programs cause trouble on your computer, it's bad enough, but when Windows itself acts up, the problem can be serious. Some of the most vexing problems posed by Windows XP and Windows Vista are mere annoyances, while others are major issues that can destabilize the entire PC and cause unexpected crashes.

Fortunately, Windows comes with enough built-in tools that most of these problems can be fixed without the need to download, install, or learn additional software. In fact, it should be noted that many problems can be solved by rebooting the computer or by keeping Windows updated (more on that later), but when neither of those options works, you can turn to the following solutions to some of Windows' most puzzling and frustrating problems.

Note that performing many of the fixes in this article requires that you be logged in to a Windows account that allows for administrator privileges.

Error Message:

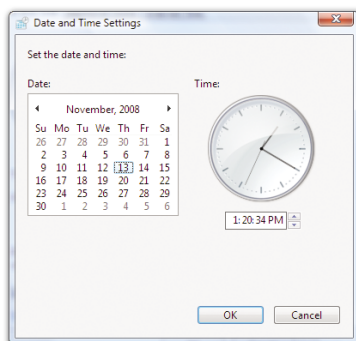
Windows could not search for new updates (Code 80072F8F)

Translation: Although the wording of the error makes it sound as though Windows couldn't connect to the update service, this particular error code indicates that the clock in Windows reports a time and date that is wildly different from the current time and date that the update service uses.

Solution: Microsoft lists four methods to solve this problem, which should be followed in order. We'll cover the first

two here, and if they don't work, visit support.microsoft.com and search for article 929458 in the database.

Double-click the clock in the System Tray and make sure the time and date are correct. If they are not, manually adjust them in WinXP or click Change Date And Time Settings in Vista and then click Change Date And Time to make the adjustments. Click OK and see if the updates install properly.



If the date and time in Windows don't match the date and time on the Windows Update server, it causes problems.

If that doesn't work, or if the time and date are correct, the underlying cause may be an outdated certificate that is issued by the update service's Web site for security reasons. You must install a new certificate by visiting update.microsoft.com (use Internet Explorer for this) and letting Windows Update perform a scan. When the scan is complete, click Software, Optional, and then install the Microsoft Root Certificate Program entry that appears there.

Problem:

When you try to open, copy, or move a file or folder, an "Access is Denied" error message appears.

Translation: The file or folder is there (and intact), but the user account currently logged in doesn't have permission to view it, or the file or folder isn't shared properly.

Solution: Reboot the computer and log in using an account that you know has administrator privileges. If that doesn't solve the problem, then the cause may be that a vital Windows service that is required for sharing folders is stopped and must be restarted. Click Start, right-click My Computer (Computer in Vista), and click Manage. In the left pane, double-click Services And Applications, click Services, and scroll down the right-hand pane until you find the Server entry. Double-click Server. Use the Startup Type drop-down menu to select Automatic, and click the Start button if it is available. Click Apply and OK, and sharing should work again.

Problem:

When you plug in a digital camera or insert a CD in the computer's drive, AutoPlay opens a program that you don't want to use or launches the CD when you don't want it to play.

Translation: At some point, AutoPlay was configured to associate your camera with a particular program or to behave in a way you don't always want it to (such as automatically launching programs installed on CDs).

Solution: AutoPlay needs to be reprogrammed to behave the way you



want it to, which is mercifully simple. In WinXP, click Start, click My Computer, right-click the icon for the device that is causing problems, and then click Properties. Select the AutoPlay tab, use the drop-down list to select a file type you want to edit, and click the Select An Action To Perform radio button. Select the entry in the Actions box that you want to use and click Apply. Click OK to exit the window or continue making selections for other file types.

In Vista, click Start, Control Panel, Hardware And Sound, and AutoPlay. You can remove the check mark from the Use AutoPlay For All Media And Devices box to disable AutoPlay completely, or use the drop-down menus next to each individual media or device type to fine-tune the utility. For example, to adjust the digital camera settings, scroll down to the Devices section, click the drop-down menu next to the camera's entry, and click the entry for the program you want to use before clicking Save.

Problem:

When you double-click a file, it opens, but not using the program in which you prefer to open it.

Translation: Windows maintains a list of default programs that are activated when you double-click files of a certain type. For example, if you have Microsoft Office installed, it is likely that all DOC files on your computer automatically open in Microsoft Word when they are double-clicked. If they open in a different word processor instead, it means the default file associations are not set properly.

Solution: You can manually adjust all default programs in both WinXP and Vista. Before proceeding, you need to know what type of file you are opening, which is indicated by the three-character file extension that comes after the file's name. For example, if the file is named Spreadsheet.xls, the file name is Spreadsheet, and the file type is XLS.

In WinXP, the easiest way to change the default program that opens is to right-click the file, click Properties, select the General tab, and click the Change button. Select the program you want to use from the list and click OK. If the program you want to use is not listed, click Browse, navigate to the program, click its icon, and click Open before clicking OK. From now on, all files of that type will open in the program you selected.

If you can't see the extension in Vista, right-click the file and click Properties.

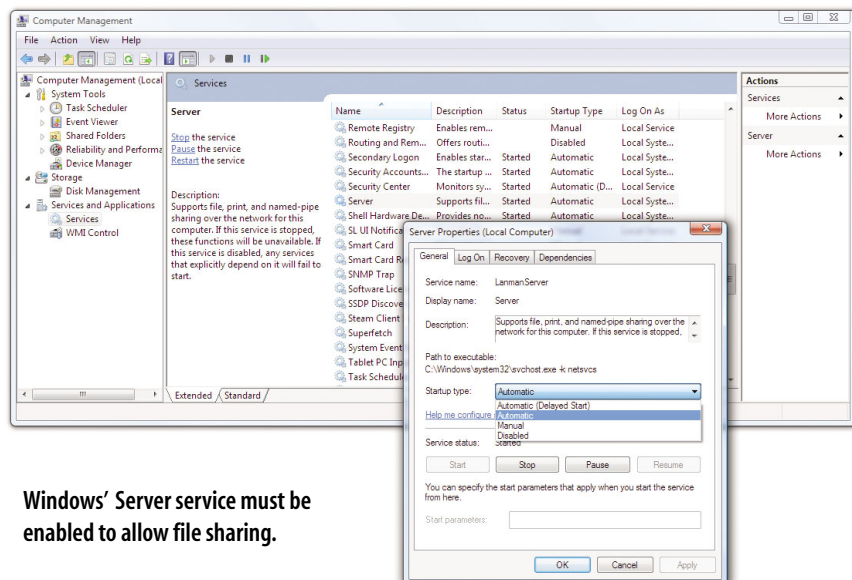
Click the General tab and look at the Type Of File entry to determine what type of file it is. Write it down and then click Start, Control Panel, Programs, and Default Programs. Click Associate A File Type Or Protocol With A Program. Scroll down the list of extensions until you see one that matches what you wrote down earlier and then click the extension name so it is highlighted. Click the Change Program button, click the icon for the program you want to establish as the default for opening files of that type, and click OK. If the program you want to use doesn't appear, click Browse, navigate to the program you want to use, select it, and click Open. Click the program's icon and click OK.

Problem:

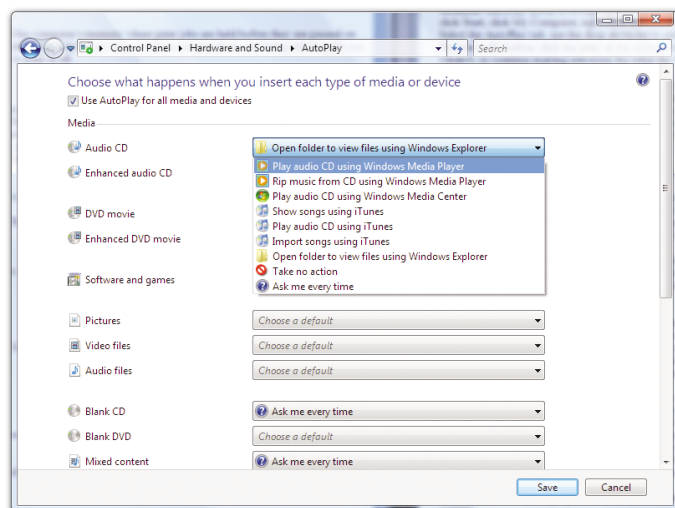
Some of your programs that access the Internet connect to the Web just fine, while others refuse to connect.

Translation: WinXP and Vista have integrated firewall software that monitors your Internet connection and only lets data in or out that has been specifically authorized by you. If a program isn't on the firewall's **whitelist**, a database of programs cleared to access the Internet, it is not allowed to send or receive data to or from the Web.

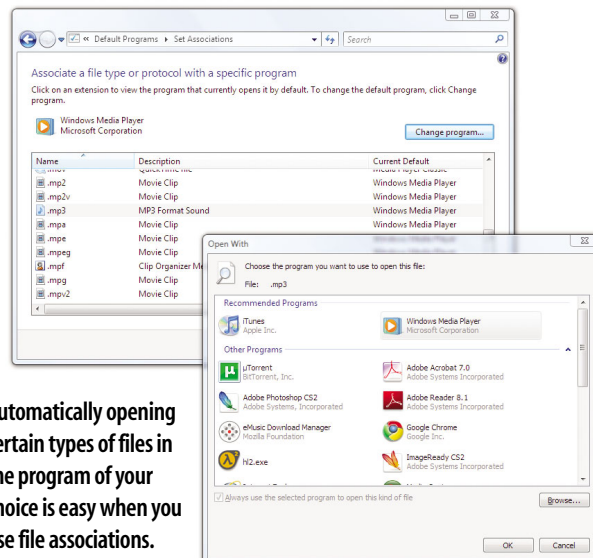
Solution: You need to manually add the program that is having trouble to the



Windows' Server service must be enabled to allow file sharing.



AutoPlay is easy to configure (or disable) if you know where to look.



Automatically opening certain types of files in the program of your choice is easy when you use file associations.

firewall's whitelist. To do this in WinXP, click Start, click Control Panel, and double-click Security Center. Click Windows Firewall, select the Exceptions tab, and check the box next to the program that you want to allow. Click OK.

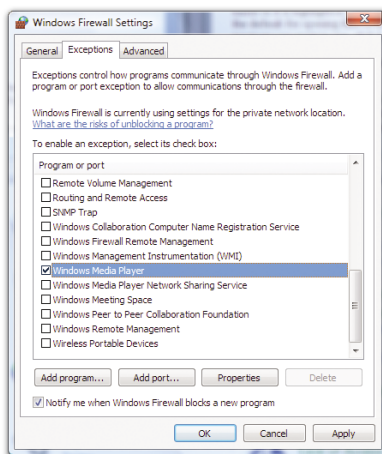
In Vista, click Start, click Control Panel, and click Allow A Program Through Windows Firewall in the Security section. When the Windows Firewall Settings page appears, select the Exceptions tab and check the box next to the program you want to allow before clicking Apply. Click OK to exit after saving your changes.

If the program still doesn't work, it may be trying to access a port (connection to the Internet) that the firewall blocks by default. Check the product's Web site or contact the manufacturer to obtain a list of ports that the program requires. In WinXP or Vista, repeat the previous steps until the Windows Firewall Exceptions tab is open and then click Add Port. Enter the values supplied by the manufacturer and click OK to add it to the whitelist.

Error Message:

Disk Defragmenter could not start.

Translation: WinXP's Disk Defragmenter tool reorganizes data on your hard drive so that related files are located physically closer together in order for the drive to access them faster.



The firewall built into Windows sometimes blocks Internet-enabled programs when it shouldn't.

During this operation, the software needs a storage buffer in which to store files that are in the process of being moved. Windows reserves a small portion of the hard drive as a page file that is used to cache data in running programs, and Disk Defragmenter relies on this feature to operate. If the page file is turned off, Disk Defragmenter can't run and generates this error message.

Solution: You must enable the page file by clicking Start, right-clicking My Computer, clicking Properties, and selecting the Advanced tab. Click the Settings button in the Performance section, select the Advanced tab, and

click Change in the Virtual Memory section. Select the System Managed Size radio button, click Set, and click OK. Reboot the computer, and Disk Defragmenter should now work.

Problem:

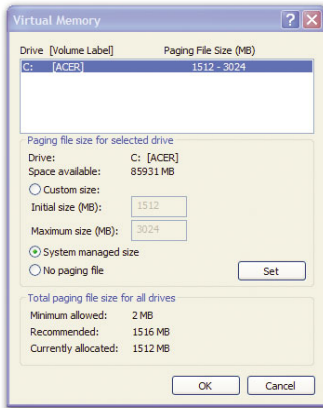
You can't find Windows Fax And Scan under All Programs in Vista.

Translation: Windows Fax And Scan is available only in the Business and Ultimate versions of Vista. If you have Home Basic or Home Premium, you will not have access to the application.

Solution: The only way to take advantage of this software in Vista is to upgrade to the Business or Ultimate edition. If you have Business and Ultimate versions of Vista, and you still don't see Windows Fax And Scan in the All Programs list, you may have inadvertently disabled the feature. Try clicking Start and opening the Control Panel. Under the Programs And Features section, click Turn Windows Features On Or Off. Make sure the checkbox next to Windows Fax And Scan is selected. Restart your PC to check if Fax And Scan is listed in All Programs.

Error Message:

Client Services for Netware has disabled the Welcome Screen and Fast User Switching. To restore these features, you must uninstall Client Service for Netware.

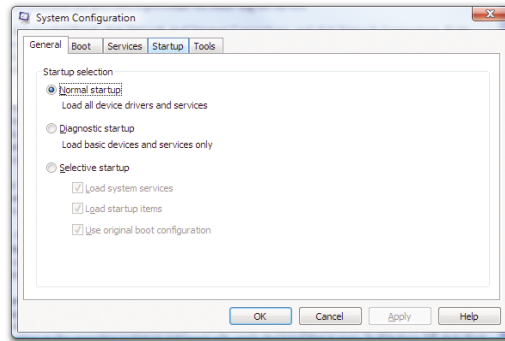


You must have a page file (also called virtual memory file) enabled in Windows to run the Disk Defragmenter.

Translation: You may see this error message in WinXP when you click Change The Way Users Log On Or Off in the User Accounts settings. If you use Novell Netware, it conflicts with certain Windows features, including the Welcome Screen and Fast User Switching.

Solution: If you rely on Novell Netware and can't remove it, there is no fix. Otherwise, the solution depends on which Netware service is causing the conflict. If you use Novell Client, Microsoft recommends that you visit support.novell.com for instructions about removing the service. If you use Client Service For Netware and want to remove it, then Microsoft has provided a procedure for removing the service.

Click Start, Control Panel, Network And Internet Connections, and Network Connections. Right-click the icon for your connection and select



If Windows isn't configured to start up in Normal mode, it generates an annoying reminder.

Properties. Select the General tab, highlight Client Service For Netware, and click Uninstall. You must repeat these steps for each local area connection, and once it is complete and you reboot the computer, both the Welcome Screen and Fast User Switching should once again be available.

Problem:

When your computer starts, the following message is displayed: "You have used the System Configuration Utility to make changes to the way Windows starts. The System Configuration Utility is currently in Diagnostic or Selective Startup mode, causing this message to be displayed and utility to run every time Windows starts. Choose the Normal Startup mode on the General tab to start Windows normally and undo the changes you made using the System Configuration Utility."

Translation: Windows comes with a System Configuration Utility that includes options that let you determine what programs start every time

Windows boots, among other things. There are three types of startup: Normal, Diagnostic, and Selective. This message appears if the System Configuration Utility is set to anything other than Normal.

Solution: In WinXP, click Start, click Run, type `msconfig.exe`, and click OK. In Vista, click Start, type `msconfig.exe` in the Start Search box, and press ENTER. When the System Configuration Utility opens, make sure the General tab is selected and select the Normal Startup – Load All Device Drivers And Services radio button before clicking Apply and then clicking OK.

Windows Update

The most important thing you can do to head off these types of problems before they affect your computer is to keep Windows updated. Microsoft constantly releases patches that fix everything from security holes to compatibility issues, and setting up the operating system to automatically apply these patches is easy. In WinXP, click Start, All Programs, and Windows Update. Select Express to receive high-priority updates immediately or Custom to choose updates.

In Vista, click Start, All Programs, and Windows Update. Click Check For Updates and then click Install Updates to install everything. You should also click Change Settings and then select Install Update Automatically to enable automatic updating, which keeps you protected at all times. If you would rather install updates manually, be

sure to check for new patches at least once a week so you limit your exposure to security holes. Windows has enough problems all on its own without introducing viruses and malware that are guaranteed to make things even worse. ■

BY TRACY BAKER

Quick Fix

Problem:

You have an LCD monitor, but text in your copy of Windows XP or Windows Vista is extremely jagged compared to the smooth text you saw on another computer running the same operating system.

Translation: Both Windows XP and Vista support an add-in called ClearType that smoothes the edges of fonts so that text looks more like something you'd see in a magazine instead of something from a 1970s-era dot matrix printer. ClearType is designed specifically for use with LCDs, and if it is accidentally disabled or is not configured properly, text looks jagged.

Solution: ClearType is installed and enabled by default if you use Windows Vista, but we recommend that you use the downloadable ClearType tuner to enable and adjust the utility in both WinXP and Vista. Download the software at tinyurl.com/33wza, launch it, follow the prompts, and your text will look pristine in no time.



Browsing For A Solution?

Solve Problems With Internet Explorer

According to a recent study from the Pew Internet & American Life Project, 69% of Americans with Internet access use a Web mail service, store their data online, or run a Web-based application. Convenience is the primary advantage of having access to your data and applications online, but when Internet Explorer—the Web browser of choice for around 70% of the population—isn't working, accessing your email, data, or applications online is no longer so convenient. To help you get back to working and surfing, we'll provide solutions for some of the most troublesome IE problems.

Error Message:

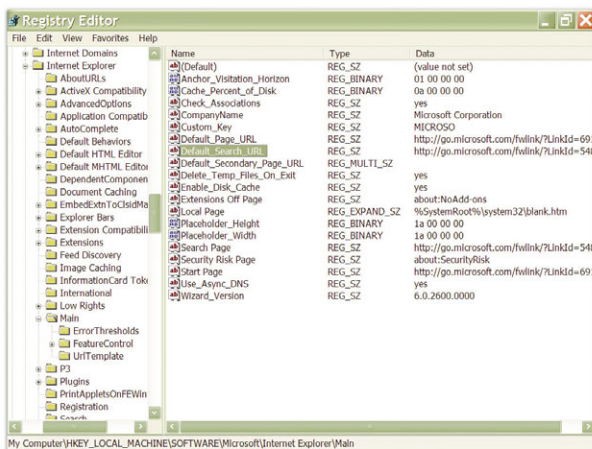
Internet Explorer has encountered a problem and needs to close. We are sorry for the inconvenience.

Translation: After the error appears, IE suddenly shuts down, so you don't have a chance to bookmark the Web sites you were viewing or finish filling out any open forms. In short, the error message indicates that IE crashed.

Solution: Microsoft has a number of articles in its Knowledge Base that cover this error message. However, only a few of the articles apply to Internet Explorer 7, which was the most recent, fully released version at press time. Microsoft indicates that this error may occur when you open a Web application that uses JavaScript (software that generates

video or audio on the Web page). You'll need to download the most current cumulative security update for Internet Explorer to patch the problem. To do so, visit www.microsoft.com/downloads and type **956390** in the Search field and press ENTER.

Depending on whether you run Windows XP or Windows Vista, look through the search results and click the Cumulative Security Update For Internet Explorer 7 For Windows XP



By editing the Windows Registry entry for Internet Explorer, you can force the Web browser to load the home page of your choice.

or Cumulative Security Update For Internet Explorer 7 For Windows Vista. At the update's download page, click Continue to validate your copy of Windows. Save the update to your PC, open the folder where you saved the file, and double-click it to begin the installation. Follow the installation wizard prompts and restart your computer after the update finishes.

Error Message:

Cannot find file ///C:\program%20files\aoI%20toolbar/welcome.html.

Translation: If you have the AOL Toolbar installed, you may see this error message appear when you open IE7. The error occurs because the AOL Toolbar has instructed IE7 to load an AOL Welcome page that does not exist. Even if you uninstall and reinstall the AOL Toolbar, the error will continue when you open IE7, because it still attempts to load the nonexistent AOL Welcome page.

Solution: To resolve the error, you'll need to use the Windows Registry Editor and change your Internet Explorer home page. Note that you'll want to be careful when modifying the Registry, because making the wrong change to an important Registry entry may stop your PC from successfully booting. Additionally, you'll want to back up the Registry before making any changes. Creating a System Restore Point in the Windows System Restore utility is generally the easiest way to back up the Registry. Select the Start

button, click All Programs, expand Accessories, choose System Tools, and click System Restore. In Vista, click the Open System Protection link, click the Create button, enter a Restore Point name, and click Create. For WinXP, click Create A Restore Point and follow the wizard prompts. If anything goes wrong, you can boot your PC into Safe Mode (typically



involves pressing F8 at bootup) and load the restore point to fix the Registry changes.

To enter the Registry in Vista, click Start and type **regedit** in the Start Search box. In WinXP, click Start, click Run, type **regedit** in the Open field, and click OK. Next, locate the entry for HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Internet Explorer\Main. Double-click the Default_Page_URL listing and enter the Web site you want to use as your home page. The error should no longer occur when you open IE7.

Error Message:

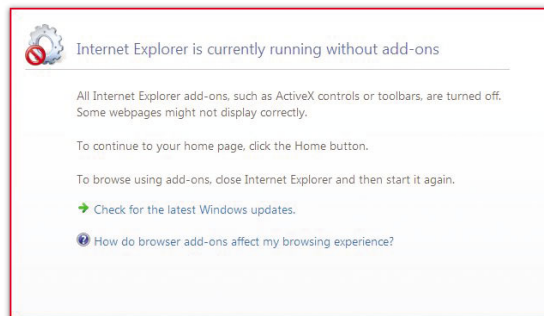
You need to enable cookies to use this site.

Translation: This error message, or a similar error message, can appear when you visit a Web site that must set a cookie on your Web browser before the Web page will open. Other popular variants of this error message include: Your Browser Does Not Seem To Be Allowing Us To Set Cookies and You Must Enable Cookies For This Site To Load Properly.

Solution: Cookies are small files that Web sites leave behind so that you don't need to log on each time you revisit the Web site. If IE's privacy settings are set to High, by default, IE won't allow a Web site to save cookies to your computer's hard drive. Cookies can be dangerous, as the small files may be used to gather information about your browsing habits. Fortunately, you can keep

IE's High privacy settings and still allow your trusted Web pages to save cookies.

Open IE, click the Tools menu, and select Internet Options. Click the Privacy tab, choose the Advanced button, and place a check mark in the Override Automatic Cookie Handling checkbox. Select the radio button for Prompt under the First-Party Cookies and Third-Party Cookies headings. Alternatively, you could open the Privacy tab and move



Running IE in No Add-ons mode runs the browser without any of the add-ons, toolbars, and plug-ins you may have installed.

the Settings slider to Medium, which will let IE automatically save cookies as long as the saved file indicates that the cookie can't be used to contact you without your consent.

Error Message:

Setup cannot copy the file **leeula.chm**

Translation: The error message can appear when you try to uninstall IE7 in WinXP by using the Add Or Remove Programs tool in the Control Panel. Because of the error message, IE7 will not be uninstalled.

Solution: Microsoft indicates there are two workarounds to the problem: You can replace the **leeula.chm** file or restore WinXP to the last known good state using System Restore. Copying the **leeula.chm** file is probably the easiest method, and unlike restoring WinXP, you won't have to worry about removing recently added files or applications. To replace the **leeula.chm** file, click Start, select Run, type **%windir%\help** in the Open field, and click OK. Right-click **leeula.chm** and select Copy. Close Windows Explorer, click Start, select Run, type **%windir%\IE7** in the Open field, and click OK. Click the Edit menu and select Paste. You should then be able to uninstall IE7 in WinXP using the Add Or Remove Programs tool.

Error Message:

Runtime error. Abnormal program termination.

Translation: You may see this error message when IE7 closes immediately after you open the Web browser. Runtime errors in IE7 are typically caused by ActiveX controls or browser toolbars that run as add-ons in IE and have become corrupted. The browser plug-in may also have a conflict with IE7 that forces the browser to close.

Solution: To determine if an add-on is causing the problem, run IE7 in No Add-ons mode. In Vista, click Start, type **Internet Explorer** into the Start Search box, and choose Internet Explorer (No Add-ons), which is a version of the browser that opens without any add-ons, toolbars, or plug-ins.

Although this method is effective, you may prefer to run IE7 with some of the enhancements you've chosen to install, so you'll want to find the particular plug-in causing the problem.

To determine the faulty plug-in, open IE7 in the No Add-ons mode, click the Tools menu, select Manage Add-ons, and choose Enable Or Disable Add-ons. At the Show dropdown menu, select Add-ons That Have

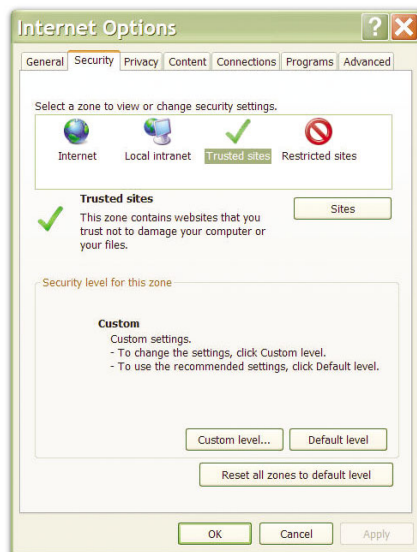
Been Used By Internet Explorer, which will display all the plug-ins that you've installed for IE7. Click each item in the list and select the Disable radio button. Next, restart IE7 and enable the add-ons one by one until you find the plug-in causing the problem.

Error Message:

The page you are viewing uses Java. The Web site requires JavaScript to be enabled in your Web browser.

Translation: Like cookies, some Web pages need you to allow JavaScript or some of the Web site's features may not load. Typically, you'll see the error if IE7's security settings are configured to the High level. Some types of malware, such as malicious pop-up and banner ads, use JavaScript programs to infiltrate your computer, so you'll want to be careful with IE's security level.

Solution: By default, IE7 allows most JavaScript and Flash-based applications to run freely, so if you are receiving this message, it's likely that you changed IE's security settings to protect your PC from malicious intruders. Fortunately, you can use IE's Trusted Sites zone to allow reliable Web pages to run JavaScript programs without lowering IE's security level. To allow scripting from a particular Web page, visit the Web site, click the Tools menu, and select Internet Options. Click the Security tab and choose Trusted Sites under the Select A Zone To View Or Change Security Settings heading. Click the Sites button and choose the Add button to allow the current Web page to run Flash, JavaScript, and ActiveX applications in IE.



IE's Trusted Sites zone allows you to let specific Web sites run JavaScript and ActiveX software that wouldn't normally be allowed with High security level.

Error Message:

Windows Update has encountered an error and cannot display the requested page. The necessary service "Automatic Updates" (WUAUSERV) is not started or Background Intelligent Transfer Service (BITS) is disabled. Error 0x8DDD0018.

Translation: The error message may appear in WinXP when you try to open the Windows Update Web site (update.microsoft.com) and install a Windows Update. The error appears when the BITS (Background Intelligent Transfer Service) or the Automatic Update service has been stopped.

Solution: Start by verifying that the BITS and Automatic Update services have been started. Click Start, select

Run, enter `services.msc`, and click OK. Right-click Automatic Updates from the list of services and select Properties. From the Startup Type list, select Automatic and choose Apply. If the Service status is listed as Stopped, click Start and click OK. Next, right-click the Background Intelligent Transfer Service and select Properties. Select Manual, click Apply, and set the Service status to Start.

Error Message:

Internet Explorer 8 could not be installed. You must restart your system to confirm that any changes to your system are undone.

Translation: This error message may appear after the Internet Explorer 8 Installation Manager finishes. The error indicates that due to an issue with your PC, IE8 could not be installed.

Solution: Microsoft indicates that IE8 may require you to install all the critical updates for your version of Windows before IE8 can successfully install. To locate the critical updates you'll need, open IE and visit update.microsoft.com. Next, click the Express button, and Windows Update will locate all the updates Microsoft considers important for your OS (operating system). Select the updates listed and click the Install Updates button. Note that you may be prompted to restart your computer. When all the critical updates are installed, visit www.microsoft.com/windows/internet-explorer/beta to download and install the newest beta of IE8.

Quick Fix

Error Message:

The Web page you requested is not available offline. To view this page, click Connect.

Translation: You'll see this error message when you attempt to open a Web page, and Internet Explorer cannot detect a connection to the Internet. It's possible that your PC has lost its connection to the Internet, or that IE has been set to Work Offline mode.

Solution: First, check whether your PC is connected to the Internet; you may need to disconnect and reconnect an Ethernet cable or reconnect to your wireless network to re-establish your Internet link. If IE continues to produce the error message, open IE, select the File menu, and remove the check mark next to Work Offline.

Another Solution

There is a wide variety of alternative Web browsers available, including Firefox, Opera, and Safari. Thus, you can always try another browser if you're experiencing a problem that you cannot fix in IE. ■

BY NATHAN LAKE

Don't Shoot The Messenger

Solve Email Problems



Is there anyone with a computer who doesn't rely on email? According to a recent Pew Internet & American Life Project Tracking survey, 92% of computer users in the United States send or read email, and 60% of users do so on a daily basis. Hundreds of billions of emails are sent and received every day (no, not all of them are spam), and when that much digital data is flung around, something is bound to go wrong. Whether you can't get to your emails, can't receive them from other people, or your email software is just acting cranky, there are several ways to sort things out that are relatively painless.

Much of what we're about to delve into makes much more sense if you know how the basics of email work. The program you use to compose, send, receive, and store email is called a client. When you send email, the client connects to an outgoing email server, most often using a protocol called SMTP (Simple Mail Transfer Protocol). The mail server then passes the message on to the recipient's mail server where it is stored until the recipient's email client logs on to the server and downloads the message using a protocol such as POP3 (Post Office Protocol version 3). This is why when you set up an email account, you must supply the addresses of two separate mail servers—one is for sending, and the other is for receiving.

Although some of the general problems covered in this article should

work regardless of the email client you use, specific step-by-step solutions are only provided for Outlook Express, which comes with Windows XP, and Windows Mail, which comes with Windows Vista.

Problem:

When you click an email Mailto link when browsing the Internet, your preferred email client doesn't open.

Translation: Windows uses a technique called file associations to remember which program to open as a default. If Mailto links are associated with a different email client than the

drop-down menu to select the email client you want to associate with Mailto links before clicking Apply and OK.

In Vista, click Start, Default Programs, and Set Your Default Programs. Click the name of your preferred email client and click Set This Program As Default if you want to establish it as the default for everything that it can possibly open. If you want to choose the default settings, click Choose Defaults For This Program and check the boxes next to the entries you want to associate with the program before clicking Save.

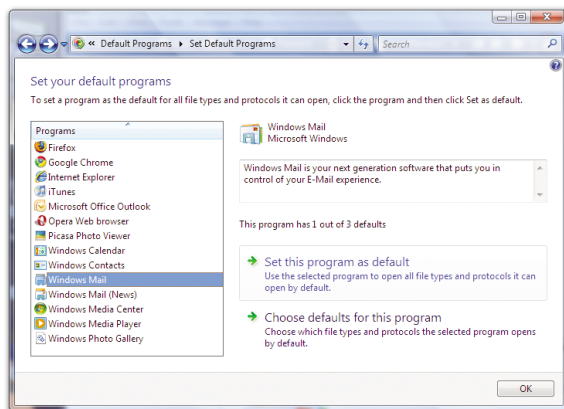
Problem:

You can send email but not receive email.

Translation: Either your incoming mail server is not working, or you have not properly configured your email client to access the incoming mail server.

Solution: The fact that you can send email indicates that your Internet connection isn't the problem, so double-check your email client settings to make sure they match those supplied by the service provider who manages your incoming email server (this is often your

ISP, or Internet service provider). To do this in Outlook Express, click Tools, click Accounts, select the Mail tab, click the name of the account that is having trouble, and click Properties. In Windows Mail, click Tools, click Accounts, click the name of the problematic account, and click Properties.



If your email program doesn't open when you click Web email links, change the file association.

one you like to use, then the other client always opens when the Mailto link is clicked.

Solution: Fix the file association in WinXP by clicking Start, Control Panel, Network And Internet Connections, and Internet Options. Select the Programs tab and use the E-mail

Select the Servers tab and check the Incoming Mail entry to make sure the name there is correct. In the Incoming Mail Server section, make sure your account name and password are correct and select the Remember Password checkbox. Finally, take a look at the Log On Using Secure Password Authentication box, which is the most common cause of incoming mail problems. Only check the box if your email service provider requires it.

If everything in the Servers tab is configured correctly, then there is a problem with your incoming mail server that only your service provider can fix.

Problem:

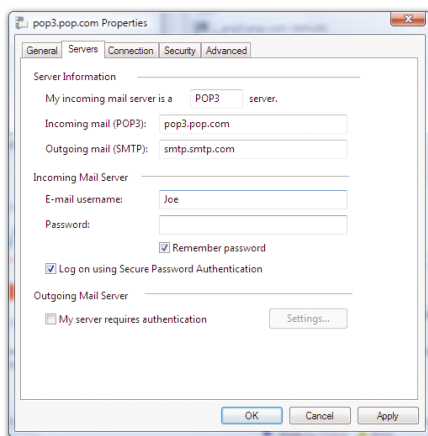
You can receive email but not send email.

Translation: This happens when there is something wrong with your outgoing email server or when your email client is not set up properly to access the outgoing email server.

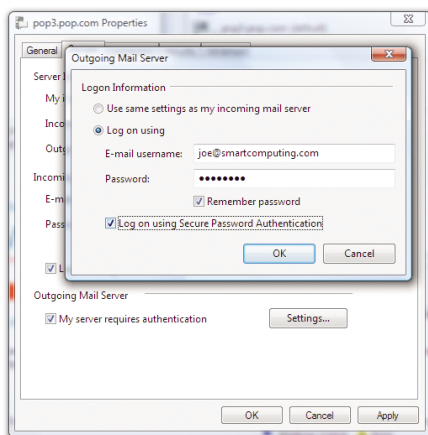
Solution: Your Internet connection obviously isn't causing this, so if you have Outlook Express, click Tools, click Accounts, select the Mail tab, click the name of the troublesome email account, and click Properties. In Windows Mail click Tools, click Accounts, click the name of the account, and click Properties.

Select the Servers tab and make sure the entry in the Outgoing Mail (SMTP) box is correct. Next, make sure the My Server Requires Authentication box is only checked if your service provider requires it. Service providers often do, so if you must check the box, also click Settings. Select the Use Same Settings As My Incoming Mail Server radio button if your service provider told you to do that; otherwise select the Log On Using radio button and enter the correct login credentials there. If (and only if) your ISP requires secure password authentication for its outgoing mail server, be sure to check that box before clicking OK.

If none of that works, contact your email service provider because it needs to fix the server.



Only log in using secure password authentication if your ISP (Internet service provider) specifically requests it.



Don't forget to configure the advanced Outgoing Mail Server settings if necessary.

Problem:

You set up an email account to send and receive email using an online email service, but after configuring it according to the service's directions, you can only send and can't receive.

Translation: Many ISPs that serve residential customers require that those customers send all emails through their servers. If you set up your email client to send mail using the online email service's servers, your ISP won't let it through.

Solution: Leave the incoming mail settings alone but modify the outgoing settings so that your ISP's server is used. In Outlook Express, click Tools, click Accounts, select the Mail tab, click

the name of the online email account, and click Properties. In Windows Mail, click Tools, click Accounts, click the name of the online account, and click Properties. Select the Servers tab and configure the Outgoing Mail (SMTP) entry and the Outgoing Mail Server options according to the instructions provided by your ISP.

Error Message:

Your server has unexpectedly terminated this connection.

Translation: You may see this message when you open Windows Mail. (In Outlook Express, you may see the message, "The connection to the server has failed.") The client attempted to log in to your email server to either send or receive mail but couldn't establish a connection. If the account referenced in the message is the outgoing (generally SMTP) server, then mail couldn't be sent, and if the account referenced is the incoming (generally POP3) server, then mail couldn't be received.

Solution: Make sure your Internet connection is active because the client can't connect to the server without it. If that checks out, contact your ISP to see if its email servers are operating properly. If it's an emergency and you must email something right away, use an online account such as Yahoo! Mail (mail.yahoo.com) or Gmail (www.gmail.com) and see if that works, as online Web email accounts use their own incoming and outgoing email servers.

Problem:

Most of your emails with attachments are sent without any problems, but, occasionally, you receive an email saying something to the effect that the attachment is too large, and, therefore, your email was not sent.

Translation: Most ISPs limit the size of outbound emails from residential customers to prevent users from clogging up the system by sending tons of spam and also to prevent them from using the service for



business purposes. Emails with attachments that are too large are stopped by the outgoing mail server, and an email is generated to inform you about the problem.

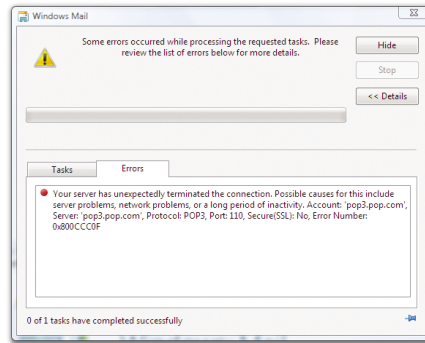
Solution: Check with your ISP to see what its attachment size limit is so you can stay under that limit. In both WinXP and Vista, you can right-click any file you intend to attach, select Properties, and check the file size in the General tab so you know what file sizes you are dealing with.

If you find yourself regularly exceeding the attachment size limit, check to see if your ISP offers a different service tier that raises the limit. Another option is to use a compression utility to make files as small as possible before you attach them. Compression doesn't do much good if you're emailing pictures saved in JPEG (Joint Photographic Experts Group) format or digital movie files because those formats are already compressed—but it never hurts to try. To compress a file in WinXP or Vista, right-click it, expand Send To, and select Compressed (Zipped) Folder.

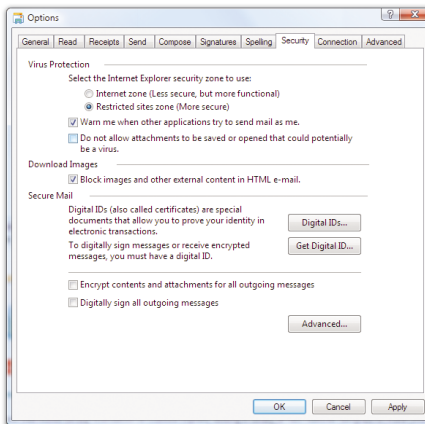
Problem:

Outlook Express and Windows Mail let you open most attachments just fine, but some types of attachments generate an error message, and neither program will let you open them.

Translation: Virus writers routinely use email as a gateway to your



Always check your Internet connection first if you receive a connection error such as this one.



If you ever decide to allow a potentially unsafe attachment through your email, be sure to block it again once you are finished.

computer, sending malicious files as attachments that they hope you will open, thereby installing their payload on your computer. Certain types of files, such as executables that have an

.EXE file extension, are particularly dangerous, so Outlook Express and Windows Mail are configured to block them by default.

Solution: We recommend not solving this problem because it can lead to all sorts of trouble, but if there's an attachment that you are certain is safe that you absolutely must open, you can temporarily override the block. In either program, click Tools, click Options, and select the Security tab. Remove the check mark from the Do Not Allow Attachments To Be Saved Or Opened That Could Potentially Be A Virus box. Click Apply and OK. Open or save the attachment and then repeat this process but check the box so that future attachments are blocked.

When It's Not Your Fault

Troubleshooting email is sometimes more difficult than dealing with other computer problems because the servers that sit between your computer and the recipient's computer are not under your control. If you've tried everything in this article, but your email still isn't working, contact the company that owns your email server (generally your ISP) and ask technical support if your server is running properly. ■

BY TRACY BAKER

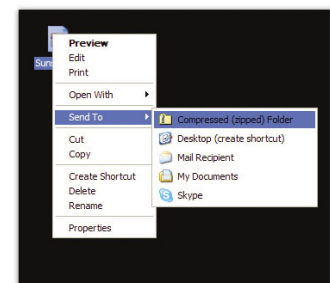
Quick Fix

Problem:

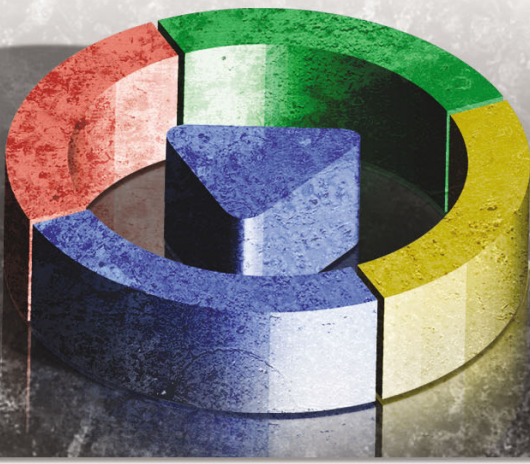
You have a broadband connection, and emails with large attachments download quickly, but sending emails with large attachments seems to take forever.

Translation: Most ISPs advertise their download speeds, which is the speed with which you can retrieve files from the Internet. This differs from the upload speed, which is how fast you can send files to other users on the Internet. ISPs that cater to residential customers tend to offer blazing-fast download speeds so customers can take advantage of streaming video and download large files quickly, but they artificially cap the upload speed to a fraction of the upload speed to prevent home users from running business services from their residential accounts.

Solution: Contact your ISP to see if it offers a different tier of service that includes faster upload speeds. If it doesn't, switching to another provider that does offer faster speeds is the only way around this problem.



Compressing files is a good way to get around attachment size restrictions.



Windows Media Mayhem

Solve Problems With Media Player & Media Center

The evolution of media playback in Windows has seen major changes in recent years with the advent of Windows Media Center and the continued expansion of features in Windows Media Player. But, all of these new video and music capabilities come at a cost—like any other gadget, more features mean more potential for problems. Still, there's no reason for these problems to permanently interfere with your enjoyment of TV, movies, music, and other media formats, because most problems with Windows media programs can be solved with just a few steps.

Problem:

Windows Media Center returns an error (such as "Tuner Not Found") when you watch TV.

Translation: The most common culprit when encountering TV-related errors in Windows Media Center is the TV tuner. Problems with the tuner can range from installation and driver troubles to configuration issues.

Solution: If you're using an external USB tuner, make sure it is plugged in to a USB port on your PC or expansion hub. USB devices occasionally are finicky when it comes to ports, so you can also try using a different port if it's already plugged in. If the tuner is an internal card, shut down your PC and touch a metal portion of the case (to release any static electricity). Open the case and make sure that the card is inserted firmly in the expansion slot on the motherboard. The process of connecting the TV cable tends to put excessive pressure on the card, which can then slide the card from the

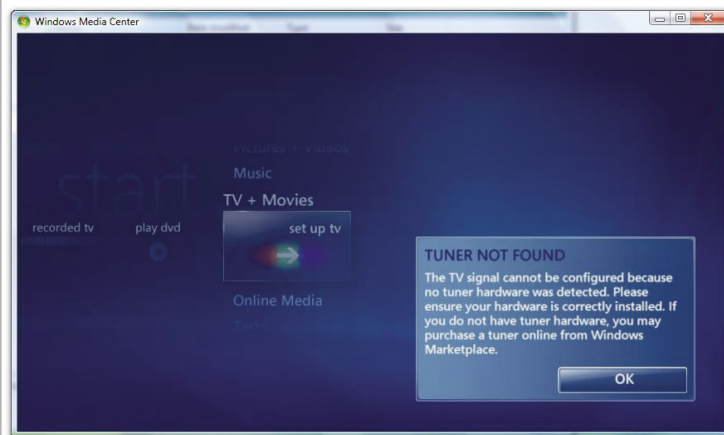
motherboard slot if it's not properly secured to the case housing. When you install the card, make sure you firmly attach the screw so that the card won't be affected by this pressure.

Although many tuners work without a hitch, it's still necessary to use the latest drivers to prevent errors when watching TV. Check the tuner manufacturer's Web site for the latest drivers that you can download and install.

If the tuner is correctly installed and using the latest drivers, check that the

tuner, make sure to close it before using Media Center. Similarly, if Media Center needs to access a certain video decoder to play a stream, it will be unable to do so if another media player is accessing it, so close the other program.

If you receive an error explaining that the video decoder has malfunctioned, try restarting Media Center. If that doesn't work, restart your computer and try again. If you continue to encounter decoder-related errors when watching TV or video content,



If you encounter this error, then Windows Media Center is having difficulty finding your TV tuner.

hardware is correctly configured. On the Windows Media Start screen, scroll to Tasks, click Settings, click TV, and click Set Up TV Signal. Follow the steps included in this configuration utility to connect the TV signal.

Windows Media Center will also return errors when it detects software problems or conflicts. For example, it will not show a TV signal if it discovers that the tuner is in use by another program. If you allowed another media player (such as Winamp) to access the

consider reinstalling your video codecs. Browse to www.free-codecs.com and download and install the K-Lite Codec Pack, which will arm your PC with all of the most common codecs for handling video content.

Problem:

You cannot listen to FM radio stations.

Translation: You may encounter this problem when using Windows Media Center. A bad installation may be the culprit.



Solution: First, ensure that your FM tuner is properly installed and is configured to use with Windows Media Center. After installing the tuner, go to the Windows Media Start screen and then click Tasks, Settings, TV, and Set Up TV Signal. After configuring the tuner, you'll see the Radio option in Media Center.

Like other digital FM receivers, Media Center tends to skip past stations that have a weak signal when you use Seek mode. So, if Media Center appears unable to find a certain station, try tuning directly to that station. If you're using tuner hardware for both radio and TV, be aware that the radio may stop playing when the TV function is in use, but Media Center should show a warning if you have a TV show scheduled to record and you're currently listening to FM radio.

If you have both a TV tuner and an FM radio tuner, make sure that you configure each tuner to connect to its own FM radio source. This way, you can watch or record TV with the TV tuner while listening to FM radio using the discrete FM tuner.

Problem:

Guide data in Windows Media Center isn't downloading properly.

Translation: If you use Windows Media Center regularly to watch and record TV, you likely rely heavily on its Guide feature to browse through upcoming programming and record shows. However, Guide problems are relatively common and can turn the process of watching TV on your PC into a headache.

Solution: One of the more frustrating problems occurs when Guide information, such as channel numbers, is downloaded but isn't correct. One fix for this problem is to select a different set of Guide listings in the Guide Setup. To do this, scroll to Tasks on the Start screen, click Settings, click TV, click Guide, and then click Set Up Guide Listings. Here, you'll be able to select a new channel lineup (typically, you should select your cable provider).



To properly configure your FM tuner in Windows Media Center, you'll need to access the TV signal configuration settings. Until you do this, you won't see the Radio option.

If some of the channel numbers are incorrect in your Guide, you can manually edit the numbers to reflect the correct ones. In the Guide Settings, click Edit Channels and click Edit Numbers. Next, click Restore Default, which will use the default mapping for all available channels and then use the arrow keys to browse the channel list. When you select a channel you want to change, enter the new channel number. If that number is already being used for

another channel, Media Center will warn you, and you'll be required to enter separate numbers for each channel. When you're done editing channel numbers, click Save.

The Guide is also prone to problems when downloading listings. If you receive error number 20, 21, 22, 23, 24, 25, or 82, there was a problem with the Guide download. This usually can be solved by restarting Media Center and trying the download again, though you might need to reboot your computer before retrying.

Error Message:

Cannot rip files.

Translation: You may receive this error when ripping music from a CD and converting it to MP3 files in Windows Media Player 10. Windows Media Player can encounter problems when trying to rip music from CDs at an audio quality rate of 128Kbps (kilobits per second).

Solution: For a workaround, you can try to use a different audio quality rate to avoid the problem. To do so, open the Options menu under Tools and select the Rip Music tab. Under Audio Quality, move the slider to a setting other than 128Kbps and click OK. Selecting a higher rate will result in better sound quality, but your MP3 files will be larger.

If you want to rip at the 128Kbps rate, Microsoft has identified a Windows Registry setting that can cause

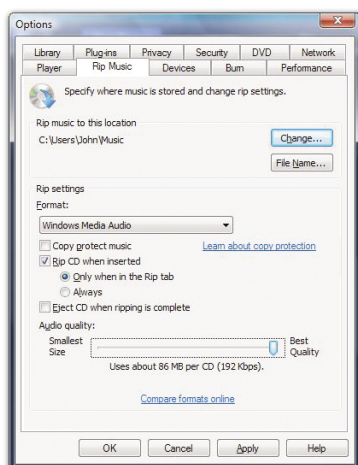
problems with this rate. The solution is to delete it, but before proceeding, you should back up your computer and create a restore point using System Restore. To do so, click Start, All Programs, Accessories, System Tools, and select System Restore. For WinXP, click Create A Restore Point and follow the wizard prompts. In Vista, click the Open System Protection link, click the Create button, enter a Restore Point name, and click Create. Also, be warned that making changes in the Registry can render your system unusable, so tread with extreme caution when working in the Registry.

After you've backed up your computer and created a restore point, in WinXP, click Start, click Run, type **regedit**, and click OK. In Vista, click Start, type **regedit** in the Start Search box, and press ENTER. Next, browse to the following key: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MediaPlayer\Settings\Mp3Encoding. In the right-hand pane, right-click the LowRateSample (or LowRate) value and click Delete. Click Yes to confirm the deletion and close the Registry Editor.

Problem:

The rights (or licenses) for your media files are corrupted or invalid.

Translation: Although the DRM (digital rights management) system



Ripping CDs from Windows Media Player can be problematic if you're using the 128Kbps (kilobits per second) audio quality rate. To work around the problem, try using a higher or lower rate.

used by Windows Media Player often works without a hitch, it can become corrupted when you install or replace hardware or make other changes with your system. This can prevent licensed files from playing and can prevent you from downloading new rights or licenses.

Solution: You must reset the DRM system. Click Start, Control Panel, Appearance And Themes (Appearance And Personalization in Vista), and open Folder Options. Select the View tab, click Show Hidden Files And

Folders, and click to deselect Hide Protected Operating System Files (Recommended). Click OK.

Next, open the Windows Media DRM folder, which typically resides at C:\Public\DRM. If you don't see the folder there, open the Registry Editor (see previous Error/Solution for instructions) and browse to the following key: HKEY_LOCAL_MACHINE\Software\Microsoft\DRM. Double-click the DataPath value to see the path to the DRM folder.

In the DRM folder, select and delete all of the files and then restart your computer. As you play your files, Media Player will contact the online store where you bought each file and download new rights. You can also check with the online store to see if there's a method for restoring the rights to all of your files at one time.

Don't Be Shy With Settings

When you can't find a solution to a problem in Media Center or Media Player, don't hesitate to click through the options for these programs. Microsoft includes a wealth of settings that can help users fine tune these programs for their particular hardware configurations. ■

BY CHRISTIAN PERRY

Quick Fix

Problem:

The TV image in Windows Media Center looks stretched on a computer monitor.

Translation: This usually indicates that the aspect ratio is incorrect in the display settings.

Solution: A simple adjustment of the aspect ratio will solve issues with the image in Media Center appearing stretched or narrow and surrounded by margins. On the Media Center Start screen, click Tasks, Settings, General, Windows Media Center Setup, and then click Configure Your TV Or Monitor. When prompted, click Standard (4:3) or Widescreen (16:9).

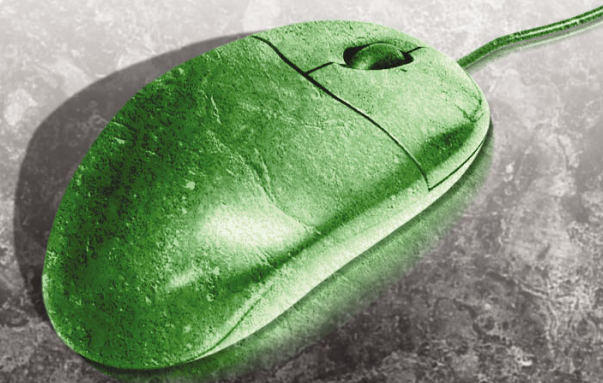
Next, select your display resolution and complete the following instructions. You should always use your monitor's native resolution, so you'll need to check the monitor's manual if you're not sure what that setting should be. You can also change the aspect ratio when viewing individual channels. To do so, right-click the picture when viewing TV and click Zoom. Continue clicking Zoom until you find the zoom mode that works for you.



By selecting the proper aspect ratio for your display, you can avoid TV images appearing stretched or boxed in by margins.

Rough Around The Edges

Solve Problems With Peripherals



Peripherals extend computing power in ways no standalone PC could ever achieve. Printing, photography, mobile communications, and redundant storage are all functions best left to external hardware. But things aren't always easy in the world of peripherals. Strange error messages, incompatible hardware, and confounding software conflicts can all get in the way of a good thing. We'll identify some of the most common problems that Windows has with peripherals, along with their solutions.

Problem-Solving Basics

Before delving into error messages and detailed solutions, you should be familiar with a few common concepts related to all peripherals. The first involves device drivers, also simply called drivers. We'll describe particular problems requiring driver intervention later, but first you should get comfortable with the process and make a general effort to keep drivers up-to-date. **Drivers** are small programs that broker communications between the Windows OS (operating system) and your device. In doing so, they provide the link between whatever device you're using and any other program or hardware that interacts with your system. Almost every available peripheral comes with drivers of some sort, though some are more complicated than others. Taking

care to install drivers correctly is the first step in making sure your devices function properly.

You also need to understand how to check and update drivers. Windows' Device Manager handles this task within the OS. In Windows Vista, access it by right-clicking Computer in the Start menu and selecting Properties. Click the Device Manager option in the left pane. (In Windows XP, right-click My Computer and select Properties. Open the Hardware tab in the System Properties dialog box and click the Device Manager button.) You'll see a long list of hardware

opportunities to update or remove that device's drivers. You can also simply reinstall the original drivers bundled with your device. These often come on a CD-ROM, though they are usually available via download or are preinstalled, as well.

Apart from driver management, there are a few other important things you should remember when troubleshooting peripherals. Most problems can be resolved by rebooting the device (sometimes this is as simple as unplugging its power supply for a few seconds) or by disconnecting from the system and reconnecting. Try to re-

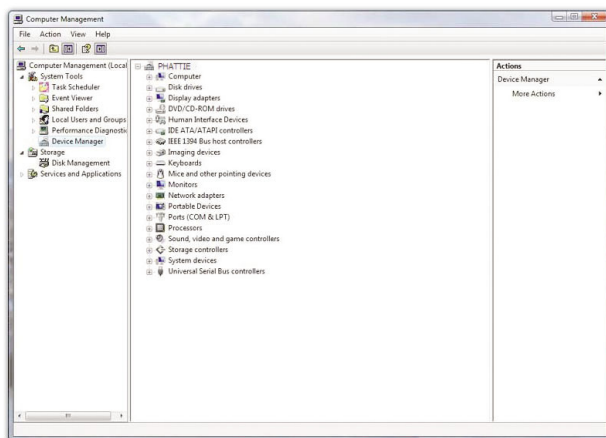
boot and/or reconnect before you undertake any more complicated steps. USB conflicts are also a constant challenge for peripheral devices. If you're working with a USB connection, try a different port or try removing other devices temporarily before moving on to other connections. Finally, make sure you visit Windows Update (update.microsoft.com) and your device manufacturer's Web site for any firmware or driver updates before proceeding. A simple update to the OS or to your drivers will resolve many

issues without any further hassle.

Error Message:

Windows cannot connect to the printer. Access is denied.

Translation: Your current machine can't access the requested printer across the network.



Windows' Device Manager acts as the control center for managing peripheral devices and their drivers.

categories, each of which expands to provide access to the specific devices on your system. Find the peripheral in question, right-click its name, and choose Properties. The Driver tab in the resulting dialog box provides details (useful for comparing to current or support versions), as well as

Solution: First, make sure the destination printer and the PC to which it's connected are both turned on and connected to the network. Next, recheck file and printer sharing settings (from both Windows Firewall and settings for the particular printer). If you're trying to print from a Vista machine to a printer shared from a WinXP machine, you may need to add the device as a local printer in Vista. Click Start, open the Control Panel, select Hardware And Sound, and choose Printers. Click Add A Printer, select Add A Local Printer, and choose Create A New Port. Choose Local Port and click Next. Finally, enter the path to the WinXP-connected printer in the Port Name box. Use the format \\xpcomputername\printername and click OK.

Error Message:

Not enough printer memory available to print page.

Translation: You may see this error message or other memory-related print errors when your printer does not have enough resources to process the current print job.

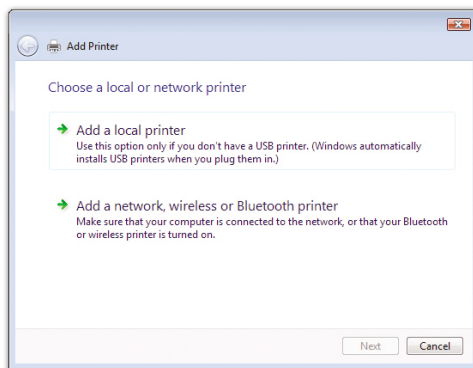
Solution: Try reducing the print resolution (measured as dpi, or dots per inch) or quality settings from within your application or by clicking the Preferences (or Properties) button in Windows' Print dialog box. Try breaking the job into multiple parts, printing just one page or one image at a time. If that doesn't work, you may be able to control Windows' allocation of memory to the printer. In WinXP, open the Control Panel, click Printers And Other Hardware, and select Printers And Faxes. (In Vista, open the Control Panel, click Hardware And Sound, and select Printers.) Right-click the printer in question, select Properties, and look for the Device Options tab. If it's present (this depends on your printer's make and model), open the tab and increase the Printer Memory setting to correspond with your system memory.

Error Message:

Spooler subsystem app has encountered a problem and needs to close.

Translation: Either old printer drivers are in conflict with a new printer, or a print job is stuck in the queue.

Solution: Disconnect your printer's USB cable and restart the spooler service. For WinXP, click Start, select Run, type `services.msc`, and click OK. Find Print Spooler in the list, right-click the title, and select Restart. Cancel the "stuck" job from the printer queue and then reconnect the device. If that doesn't work, you probably have conflicting drivers. Uninstall all the printer software and printer



You may need to use Windows Vista's Local Printer tools to configure a networked printer shared from a Windows XP machine.

drivers you can find (from both old and new models) and then reboot and try installing the new printer again according to the manufacturer's instructions. As a last resort for WinXP systems, try the Registry edits described in the Microsoft Knowledge Base article 810894 (support.microsoft.com/kb/810894).

Problem:

Your digital camera or camcorder doesn't recognize your memory card.

Translation: The card has been reformatted in Windows or is damaged.

Solution: If you're trying to move images from your PC to the card in order to view them on your camera's LCD, you may have a simple matter of

incompatibility. WinXP and Vista use a more advanced file system (called NTFS [NT file system]) than most memory cards and digital cameras, which use an earlier file system called FAT (file allocation table). Images created or altered on your PC may simply not be portable to your card or camera. Removing any such files may take care of the situation. If the camera still won't read the memory card at all, you may need to reformat the card in Windows. Connect your memory card to your PC via a card reader or the camera's cable, find the drive letter assigned to the card, right-click the title or drive icon, and select Format. Choose FAT under File System, select Default Allocation Size, and click Start. Disconnect, remove the card from the camera, reinsert it, and power up. If reformatting doesn't work, the card may be damaged and will need to be replaced.

Error Message:

Windows Mobile Device Center Sync Host has stopped working

Translation: This message appears when trying to sync a mobile device with a PC. Vista's Windows Mobile Device Center is corrupted.

Solution: First, remove and then recreate your mobile device's partnership in WMDC (Windows Mobile Device Center). If that doesn't work, uninstall and reinstall the device's software and drivers. Finally, you can reinstall or upgrade the WMDC application itself. Inside the Windows folder, navigate to the Windows Mobile folder. Remove both the Windows Mobile Device Center and any Windows Mobile Device Center Update applications. Next, run the Setup file in the Windows Mobile folder to reinstall the application. Finally, visit Windows Update to download and install any available upgrades for WMDC.

Problem:

You receive a "Fatal Error" or experience a freeze-up during a HotSync on a PDA or smartphone running Palm OS.



Translation: Your Palm software, OS, and/or third-party utilities are in conflict.

Solution: Make sure you have the most up-to-date version of Palm Desktop or the software specifically made for your device. This is especially true with smartphones, which have highly customized versions of Palm's HotSync utilities. Visit your device manufacturer's site to check for any upgrades and make sure your version is compatible with Vista (or your current OS). Next, if necessary, perform a soft reset (refer to your device's manual for instructions). Then delete any newly added software which may have corrupted the relationship between Windows and the device. As a last resort, refer to your device's manual for instructions on how to perform a hard reset of the device. This will reset the PDA or smartphone to its factory settings, after which you'll need to repeat the installation and setup process. Your first sync should restore your data and applications from the backup performed at the last successful sync operation.

Error Message:

The device 'Generic volume' cannot be stopped right now. Try stopping the device again later.

Translation: This message appears when trying to remove an external storage device using Windows' Safely Remove Hardware icon located in the System Tray. Windows thinks the drive is busy and can't shut it down "safely."



The Windows Mobile Device Center can help sync your PDA (personal digital assistant) or other mobile device, but it can also become corrupted.

Solution: First, make sure that some application or process isn't using the device. Check for open files or active applications that have used the device recently. Shut down any applications or other devices that may be maintaining a connection to the device. Check for Windows Explorer or other file system windows that may be reading from the drive. If all else fails, shut down your machine and then remove the device.

Problem:

You can't connect to your external hard drive from any applications or from Windows Explorer.

Translation: Windows does not recognize or can't find your external drive.

Solution: First, make sure the drive is connected and powered up if it has an independent power source. Reboot the machine and, if applicable, remove and restore power to the drive. Next,

use the process of elimination to isolate the problem. Start by connecting to a different port. Test the drive on another machine, if possible. If that doesn't work, uninstall and reinstall any drivers or software associated with the device.

Don't Panic

When you receive errors not mentioned here, don't panic. Errors aren't a sign of the apocalypse—a few minutes searching *Smart Computing's* Tech Support Center (www.smartcomputing.com/techsupport) or Google (www.google.com) will usually turn up several good suggestions for almost any situation. Whether the problem your peripheral is facing is small or large, there's bound to be someone else out there who has had the same problem. ■

BY GREGORY ANDERSON

Quick Fix

Error Message:

This device can perform faster.

Translation: Windows has detected a USB 2.0-compatible device connected via USB 1.1 hardware.

Solution: The two USB standards are compatible, but the newer version transfers data at speeds up 40 times that of the older version (480Mbps [megabits per second] vs. 12Mbps). The best solution in this case is to make sure that each link in the chain of USB controllers, ports, hubs, and drives all support USB 2.0. Many cheap hubs or extension cables don't support the higher standard, so you may need to plug your devices directly into the machine's USB ports. Check your PC hardware's supported version from the Device Manager (described in the main article) by expanding the entry for Universal Serial Bus Controllers. If you see "Standard Enhanced" or "USB2 Enhanced" in the titles, your ports are compatible, and you can look elsewhere for the bottleneck. Otherwise, think about adding a separate USB 2.0 add-on card.

Corel Paint Shop Pro Photo X2

Use Screen Capture

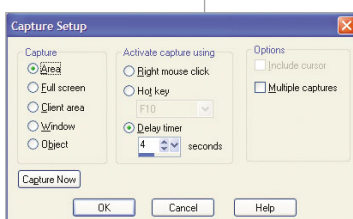
Image Processing

Beginner

WinXP/Vista

Paint Shop Pro Photo X2 includes an oft-overlooked yet valuable tool. The screen capture utility lets you take pictures of your computer screen, which can be helpful when designing Web sites, telecommuting, or creating screen shots for articles in a computing magazine. (Yes, that's how we create the graphics that accompany these articles.) Because Corel does not support this tool—the spokesperson we talked to said it arose as a bug, and Corel recommends a third-party screen capture tool instead—you may not have discovered this utility.

We think it's a nifty feature, however. Plus, it's free for PSP users.



Paint Shop Pro Photo X2 includes a screen capture utility.

What To Capture

The first step in capturing a screen is placing the image you want to capture on the screen. Make sure the window, document, image, or other file you want to capture is open (not minimized). Next, launch Paint Shop Pro Photo X2. From the File menu, select Import, Screen Capture, and Setup. This opens the Capture Setup dialog box.

Unlike using Windows' PRINT SCREEN key, you aren't limited to taking a screen shot

of the entire screen or a selected window; you can capture areas and objects, as well. In the Capture section of the dialog box, select one of the five radio buttons: Area, which lets you choose any area of the screen; Full Screen, which captures the entire screen; Client Area, which captures the contents of the active program; Window,

which takes a screen shot of the active window; and Object, which lets you capture an object of an application, such as a taskbar, toolbar, or icon.

You also must configure the tool's method for taking a screen shot. In the Activate Capture Using section, select the Right Mouse Click radio button or Hot Key radio button if you'd like to activate the utility using your mouse or keyboard, respectively. If you choose the latter, select which key or keys you'll press via the drop-down menu. Sometimes, however, the act of clicking your

screen to activate the tool can cause the image on the screen to change, for example, when you're attempting to capture a drop-down menu. In these cases, you're better off using the Delay Timer option. You can specify anywhere between one and 60 seconds in the Delay Timer box.

You also have the option of including the mouse pointer or cursor in the screen capture or of taking multiple captures at once. Make your selections and then click OK to close the dialog box.

How To Capture

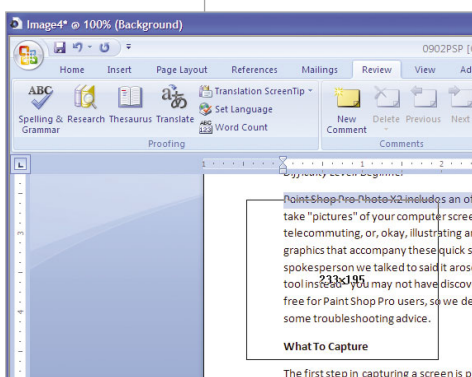
To capture a screen, select File, Import, Screen Capture, and Start. (You can also use the Capture Now button from within the Capture Setup dialog box.) Depending upon the activation method and the area you're capturing, the screen capture will either appear shortly as an image in the Paint Shop Pro Photo X2 workspace, or you'll need to perform an additional action or two. If you choose the timer, you will hear a beep when the screen capture is ready. If not, you will need to click your mouse or press a hotkey to activate the capture.

If you're capturing a window, full screen, or client area, you won't need to do anything else. If you're capturing an area or object, however, you will need to indicate what section of the screen to capture. For an object, simply click the object. For an area, click one corner of the area and drag until you reach the opposite corner of the area. When you release, the image of the area appears in the PSP Photo X2 workspace. Select File, click Save, choose a title and a file format, and click Save.

Troubleshooting Tips

There are a few known issues with the tool. If you're using Windows Vista and haven't installed the Paint Shop Pro Photo X2 12.0.1 update, the area capture may not work. Either install the update or capture the full screen and then crop the image to the desired dimensions. If dimensions are the problem—that is, they appear in the screen shot—you're likely capturing an area that is part of a Java, Visual Basic, or other ActiveX application. The workaround for this issue is the same: Capture the full screen and then crop the image. ■

BY HEIDI V. ANDERSON



When you take a screen shot of an area, the dimensions appear during the capture process but will not appear in the capture itself.

Microsoft Excel 2007

Troubleshooting File Management

Quick Studies
Problem-Solver

Spreadsheet

Beginner

WinXP/Vista

Properly handling files isn't always as basic as pressing CTRL-S every few minutes to keep your work safe. Excel occasionally throws you a curve ball when it comes to file names and locations. The following tips cover some of the most common frustrations involved with keeping your files in line.

Why has an X been showing up on all my file names since I upgraded to Excel 2007?

Files with an .XLSX name extension bear the mark of Office 2007's new file format. The new Open XML Format promises all kinds of benefits such as smaller file sizes, better resistance to

macro-based viruses, and stronger disaster-recovery possibilities. But the first time you're likely to notice the new format is when you put a file on a flash drive and try to open it on a computer running an older version of Office. No such luck. Your best bet when

transporting files to uncertain environments is to save them in the older format by opening the Save As Type drop-down menu in the Save As dialog box.

If the user of an older Office version wants to open your files without this conversion trick, they'll need to download a file converter from the Downloads section of office.microsoft.com. Complicating that job is the fact that they'll probably need to first download a service pack for their Office version. See why we recommended the Save As option first?

I start each day by working in two or three major files, and I get tired of digging several folders deep to find them every morning.

If you don't open a lot of files during the course of a day, your favorite files should appear on the Recent Documents list that pops up when you click the Office button. By default, the list holds around 15 document names ready for one-click access. So if you open your favorite files in the morning, close them and then work with

many others throughout the day, your favorites will get knocked off the Recent Documents list. To keep them there permanently, click the push-pin icon beside the file's name on the list. It becomes a green pin that keeps the file on the list.

That helps me get to files more quickly. Now I need a faster way to save files into my favorite folder.

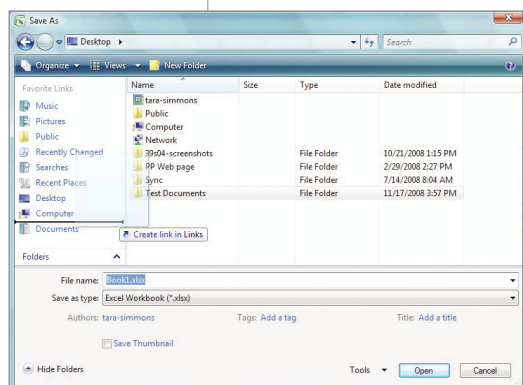
The My Places bar (available in Windows XP) helps here. It appears on the left side of the Save As dialog box (as well as the Open dialog box), and you can add up to 256 folders here for quick-access saves. (We'd stay well under that limit if you're really trying to save yourself time.) With a shortcut in place, just click the folder's name to save the active file there, even if the folder lives several layers deep on your hard drive or network. To add a folder, click the Office button and Save As. Click the folder you want to add to the My Places bar and then right-click the bar and choose Add <Folder Name>. You can change the shortcuts' order by right-clicking one and choosing Move Up or Move Down. The Favorite Links bar stands in for the My Places bar in Windows Vista. To add a folder to the Favorite Links bar, navigate to the folder in the right pane of the Save As or Open dialog box and then simply click and drag the folder to the Favorite Links area. You can click and drag items to change their order in the Favorite Links area.

I know I saved a file, but with all the folders on my hard drive and network, I have no idea where it went.

Let's admit it: This happens to all of us. It often results from opening a workbook attached to an email, editing the workbook, saving it, and closing it. On most computers, this saves the document into some attachment netherworld. The quickest approach typically is to look in the Recent Documents list mentioned above.

If you don't find your document there, step outside of Excel and use Windows' Find tool. In WinXP, click Start and My Computer. Click the Search button and follow the prompts to track down your missing data. In Vista, click Start and type your search query into the Start Search box. ■

BY TREVOR MEERS



Drag an item to the Favorite Links area in Vista for easy access to folders you use regularly.

Online

Share Your Location With Fire Eagle

Fire Eagle

Beginner

You hear the old saying, “location, location, location” a lot in real estate, but the whereabouts of your person is fast becoming just as important as your home address in the growing worldwide database of everything. As more people pick up iPhones and other mobile devices with built-in GPS (global positioning system) capabilities, Web applications are springing up to take advantage of two constantly changing numbers: your specific latitude and longitude.

Location-aware applications are just starting to find an audience. Many of these programs and Web sites answer the question of what is nearby as you go about your day—restaurants, gas stations, etc. With the number of smartphone-toting friends and family members on the rise, however, a more interesting question can be who is nearby.

Ground Floor

Yahoo! is aiming for a key niche in the growing market of pinpointing people with Fire Eagle (www.fireeagle.com), which keeps track of where you happen to be right now. Fire Eagle itself doesn't know where you are. Yahoo! doesn't have any spies or fancy satellites tracking your every move. The site only knows what you have told it.

Fire Eagle can serve as a central repository for this key data about you, allowing multiple other services to access or update that information. Post your location to Fire Eagle or some other site that uses Fire Eagle, and that information can be instantly shared with other sites and services that benefit from knowing your location.

Yahoo! shares your location information only with other applications to which you've granted the permission. Fire Eagle itself also keeps no record of where you've been. When new location information comes in, it replaces the old data. Other applications might keep such records or share information, so be sure to review the privacy policies of any site you link to Fire Eagle.

Find Yourself

To try Fire Eagle, head to the main Web site and log in using your existing Yahoo! ID. To get

the most out of Fire Eagle, you'll need two types of applications: one that updates your location and one that publicizes your location. Some programs fill both roles.

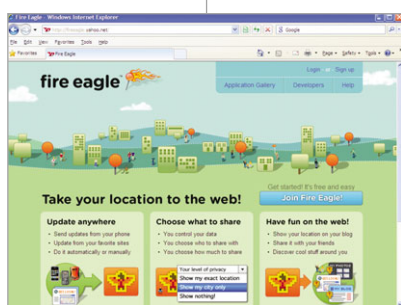
The Fire Eagle Application Gallery on the site's main page is the best place to find applications that use the service. The Gallery contains a number of social network-type applications that can post your location to sites such as Facebook and Twitter. The Gallery also links to a variety of applications that let you easily change your location or quickly read that data from your GPS-enabled phone and then send it to Fire Eagle for dissemination. How you install or use an application depends on the application. Some must be installed on your compatible mobile phone. Others are simply Web sites that can make use of your Fire Eagle information once you sign up for an account on that particular site.

You can manage all of the applications that access your Fire Eagle data from within Fire Eagle itself. On the main Fire Eagle page, click See Your Applications on the left side of the page. On the applications page, you can delete any applications you no longer want to include in the mix.

The Edit Settings buttons let you decide how much data each application can retrieve. You can allow access to the most exact location available, which could be a specific address depending on the information that's been given to Fire Eagle. If you don't want a particular application to have or share that kind of information, you can choose the ZIP code, neighborhood, city, area, or country. It's up to you what you are comfortable sharing.

For instance, you might use a blog “badge” application that displays your current location on your own Web site in order to let your blog followers track your travels. A publicly accessible blog might not be the place where you'd want to publish your exact location, but your current city might be doable. Close friends and family, however, might use a different application to keep track of you more precisely. Fire Eagle lets you customize your data stream on an application-by-application basis to fit the situation automatically. That sort of privacy measure might help users new to the whole location-sharing scene dip a toe in the water and get comfortable. It's a new world out there, and the Internet would like to know your place in it. ■

BY ALAN PHELPS



Fire Eagle from Yahoo! stores your location information and distributes it to other applications you authorize.

Browsers

Quick Studies
How-To

Keep Up-To-Date With RSS Feeds

RSS Feeds

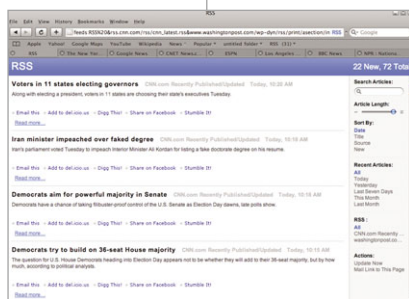
Intermediate

Many blog and newsfeed aficionados frequently turn to their favorite standalone RSS (Really Simple Syndication) feed aggregator or specialized Web site, such as Bloglines (www.bloglines.com). Tracking RSS feeds through a dedicated application or Web site is a good way to stay on top of the latest blog posts, news articles, and other updated content from around the Web without loading page after page. Popular browsers, however, have built-in RSS-reading capabilities that work fairly well for feed-reading newcomers.

Safari

The Windows version of Apple's Safari (www.apple.com/safari) provides an alert when you come across a page with an available RSS feed. You'll see a blue RSS icon in the Address bar. Click that icon, and the page you're reading will be replaced with a preview of the content currently available on the site's feed.

The convenience of RSS in Safari is not really obvious unless you start combining multiple feeds on the same page. Click the Bookmarks menu and choose Show All Bookmarks. In the Bookmarks sidebar, create a new folder by clicking the plus-sign button at the bottom of the column. Name the folder whatever you like. Drag RSS feeds you've bookmarked from the All RSS Feeds collection into the new folder. Finally, drag the new folder to the Bookmarks Bar collection. You should now see the name of your new folder on the Bookmarks toolbar. Click that new entry and choose View All RSS Articles. The main window



You can read RSS (Really Simply Syndication) feeds with your browser, including Apple's Safari, as shown here.

will fill with all of your feeds in one spot.

To get automatic notification when new posts are added to your RSS feed list, go to Edit and Preferences. Click the RSS tab and choose the options you'd like. For example, you can configure Safari to check for new content every 30 minutes.

Firefox

Like Safari, Mozilla Firefox (www.mozilla.com/firefox) notifies you when a page includes RSS feeds via a small icon in the Address bar. The

Firefox icon looks like a small orange square with radio waves. Click that icon, and you'll see the feed contents in the main window. At the top of the window, you can choose to subscribe to the feed using what Firefox calls Live Bookmarks.

Once you subscribe to a site using Live Bookmarks, you'll see a new bookmark for that site in your Bookmarks menu or toolbar. Click the bookmark, and the individual feed links will appear as sub-bookmarks. Firefox updates RSS feeds once an hour, so you'll see the latest posts in the form of these Live Bookmarks within the same structure as your other bookmarks.

The Firefox system makes a little more sense if you open bookmarks in a sidebar by clicking View, Sidebar, and Bookmarks. Click one of your RSS feed folders and then the headlines it contains will appear below. You will likely need to adjust the size of the sidebar to see more than the first few words of each headline. Click a headline link to see that story in the main browser window.

Internet Explorer

Internet Explorer (www.microsoft.com/ie) also includes basic RSS reader functionality, although it is a little more full-featured than either Safari or Firefox. Load a page that includes RSS feeds, and a square radio-wave icon in the IE toolbar will turn from gray to orange. Click that button, and a preview of the feed loads in the main IE window.

At the top of the feed page is a link to subscribe to that page. Click that link, and a Subscribe To This Feed window will appear where you can name the feed and choose a particular Favorites folder in which to store the feed. To view feeds, click View, Explorer Bar, and Feeds. Each of your subscriptions appears in the sidebar. Click one to see the current content in the main IE window.

Quick & Easy

None of the built-in browser RSS tools does a quarter as much as you'll find in a dedicated feed reader. Nevertheless, the rudimentary RSS readers get the job done and provide a good introduction to the benefits of viewing sites through a feed. ■

BY ALAN PHELPS

Microsoft PowerPoint 2007

Troubleshoot Sloppy Slides

Presentation

Intermediate

WinXP/Vista

Unless you have an exceptionally artistic eye, you probably design plenty of slides that look their best when elements are squared away for a tidy look. And because most of us don't have a dead-on design sense, we can use the help of PowerPoint's built-in alignment tools. This month, we cover the features that help you keep your slide's elements in line.

My slide includes a row of objects that won't quite line up evenly, no matter how much I drag them around.

Several tools help you align objects quickly. The most basic approach is to let PowerPoint automatically line things up along a certain line. Start by selecting all the objects at once (hold down the SHIFT key as you click each one). Then click the Drawing Tools tab that appears above the Ribbon. Now click the Align button and choose one of the options on the drop-down list. Note that the two sections on the menu work independently. You can, for example, choose Align Right to line up the right edges of the objects. Then you could select Align Top to line up their top edges, while maintaining their right-edge alignment.

Another method is to manually line up the objects yourself with a little help from grid lines

on the slide. With these horizontal and vertical dotted lines showing, you can move objects to the same positions relative to a line. The lines feature the "magnetic" quality known as "snap-to," meaning that when you drag an object near the line, it automatically sticks to the line for precise alignment.

To show or hide the grid, press SHIFT-F9 or checkmark the Gridlines box on the View tab.

There's no grid line where I need the tops of my objects to line up. Now what?

You have a couple of options. You can customize the grid's size by right-clicking and choosing Grid & Guides. Under Grid Settings, use the Spacing drop-down list to make the grid lines closer together or farther apart.

For even more flexibility, you can drop a custom guide into position wherever you need it.

Press ALT-F9 to display one horizontal and one vertical dotted line. These act as the same kind of snap-to lines used on the grid. The advantage of the guide lines, however, is that you can move them where you need them by clicking and dragging. After you use a guide to line up some objects, you can drag it to a new position to align objects elsewhere on the slide.

Now that they're aligned, I realize I need to move the objects down a bit. How can I keep them in line?

Just be sure to move them as a group. Select each object using the SHIFT-click method described above and then click and drag the entire group. They'll remain in the same relative positions (such as aligned along their top edges).

I rotated one object in a group and need the others to match its angle. But I'm finding it impossible to get exactly the same angle on all of them.

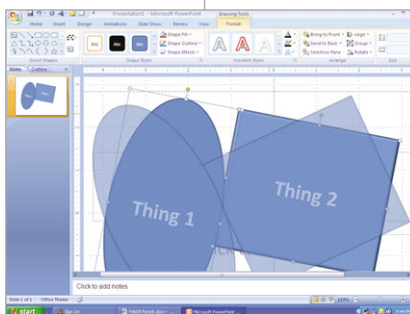
Rotating several objects as a group guarantees a matching angle. Select multiple objects by holding down the SHIFT key as you select each one. Then grab the rotation handle on one object and turn it. You'll see all the objects rotating as one.

If you already have one object at the desired angle and need others to match it, you can right-click the angled object and choose Size & Position. The Rotation setting in the Size And Position box will show you the angle the object sits at. Copy this information, close the dialog box, and right-click the object that needs rotating. Choose Size & Position and copy the angle information into its Rotation box.

I fiddled around with one square on my slide until it had just the right color, shadow, and other touches. Now I'd like the three squares around it to match.

Don't waste time trying to re-create the look on all the squares. Instead, just copy the attributes of the square that looks right. Click it and press CTRL-SHIFT-C. Then click the other square (or squares) and press CTRL-SHIFT-V. Note that if the source object includes text, its text attributes come along in the copy operation, too. ■

BY TREVOR MEERS



Use grids, guides, and tricks such as group rotations to ensure objects line up correctly and have matching looks.

Microsoft Word 2007

Understanding Line Spacing

Word Processing

Advanced

WinXP/Vista

Line spacing is one of the fundamental aspects of how text is presented in a document. You can adjust line spacing as a design technique to create a certain visual effect. Other times, you may need to use particular spacing to satisfy the requirements of a legal, medical, or academic document, for example. Word 2007 uses line spacing to define the amount of vertical space a line of text occupies.

Line spacing in Word 2007 is fairly straightforward. Create a new document and select the Home tab on the Ribbon. Line spacing is closely associated with paragraph formatting, which is why the button to access it is in the Paragraph group. Click the Line Spacing button to open a list that contains several line-spacing options you can click and apply immediately. Line Spacing Options takes you to a dialog box so you can access detailed options. Add/Remove Space Before/After Paragraph buttons quickly add 12 points of spacing before or after a paragraph.

Type or copy text into your document and then place the cursor within it. Changes made to line spacing apply to all lines in a paragraph or to selected, multiple paragraphs. Click the Line Spacing

drop-down menu. There are six options available here. We know how the first three work already: Single, 1.5 lines, and Double correspond to 1.0, 1.5, and 2.0, respectively. Now click Multiple. This option comes in handy when the multiple you need to use isn't one of the predefined ones such as Single and Double. Type the multiple you want, for example, 1.3, in the At box and press ENTER. The paragraph or paragraphs take on that line spacing.

The other two options, At Least and Exactly, let you set precise line spacing in points. The At Least option lets you set minimum line spacing when you have a document that contains paragraphs with differently sized text. For example, if you set the value to 24 points, all affected text will be spaced at that value, whether the text is 8 points, 12 points, or 24 points. However, text larger than 24 points in this example would have the spacing necessary to accommodate it.

The Exactly option will set the exact line spacing, in points, for all affected text. Be careful with this option. For 12-point text, setting this option to 12 points is **not** equal to single spacing. The spacing is much tighter, as you can see if you compare the two.

Finally, we'll show you how to set up default spacing for the Word 2007 templates. The default document settings were set up, according to Microsoft, with the intent of making documents easily readable. The line spacing is the multiple 1.15 and the paragraph spacing causes an extra line to be inserted each time you press ENTER to start a new paragraph.

Right-click the Normal style in the Styles group on the Ribbon and click Modify to change these settings. We'll show you how to change it to single spacing with no extra line after a paragraph. In the bottom left of the dialog box, click Format and then Paragraph. In the Spacing section, set Line Spacing to Single. Set both Before and After settings to 0. Click OK. If you click the New Documents Based On This Template radio button and then click OK, all new default documents will be based on these specifications.

Line spacing is an elementary but important function in Word 2007. Knowing how to adjust the line spacing will help you to precisely format documents. ■

BY TOM HANCOCK

The new template uses fonts that were designed with readability in mind. According to a blog that was active during Word 2007 development, "the new fonts used in Word are based on the ClearType technology that provides a crisper, more easily read display of the fonts on most modern monitors." Calibri is the new default font for body text, and "to complement the look of Calibri, Cambria was selected for use in headings."

The default template for creating new documents in Word 2007 also uses "looser" line spacing and introduces extra space between paragraphs. The looser line spacing is actually only 15 percent greater than single spacing (it is not double spacing, or even 1.5 line spacing). Its purpose is to introduce more white space in blocks of text, which makes the text easier to read.

Because many Word users press ENTER twice after every paragraph, the Word 2007 default settings build in that extra space.

The line spacing for the text in all three paragraphs is set at 16 points.

The line spacing is automatically boosted for the text in the last paragraph, which is 26 points.

button and choose 2.0. This applies double-line spacing to the paragraph. The "2" here is roughly a multiple of the text height, which means that if the text is 12 points, there will be about 12 extra points of space between the lines of text. Likewise, if you clicked 1.5, there would be 6 extra points of space between the lines. Click the Line Spacing button again and choose 1.0. Now there are no extra points of space between the lines of text.

Click the Line Spacing button and choose Line Spacing Options to open the Paragraph dialog box. We are concerned here only with the Spacing section of the dialog box. Click the Line Spacing

Flash Memory Cards

If you have a digital camera, digital camcorder, portable music player, digital photo frame, or GPS (global positioning system) device, chances are good that you own at least one, if not multiple flash memory cards. These and many other devices use flash memory cards of varying formats to store pictures, music, and other files. Because there are quite a few different types of cards, keeping track of which type is which, and which goes with each of your devices can be a little confusing at times. Here's a closer look at some of the most popular memory card formats.

SD (Secure Digital)

Up to 2GB

SD is one of the most popular forms of memory cards available today. Within this family, there are many different subsets of cards, which we'll cover in more detail in the following paragraphs. SD cards are often used in digital cameras, digital photo frames, and GPS devices. Many laptops have built-in SD card readers, as well.



SDHC (Secure Digital High Capacity)

Up to 32GB

We're starting to see more digital cameras and other devices that accept SDHC. These cards not only hold more data than their standard SD brothers, but many of them also support faster transfer speeds, letting your camera or other device write information to the card more quickly. SDHC cards only work in SDHC-compatible devices, but regular SD cards will work in both SD and SDHC devices.



miniSD/miniSDHC

Up to 2GB/32GB

For a time, miniSD cards were popular for use in mobile phones and other devices that had strict space requirements. Although still available today from some manufacturers, miniSD and miniSDHC cards have largely been replaced by their physically smaller brothers, microSD and microSDHC. With an adapter, microSD cards can be used in miniSD devices.



microSD/microSDHC

Up to 2GB/32GB

In terms of physical size, the smallest memory card available commercially today is the microSD card. Because of its small size, this card format is often used in mobile phones and portable media players. Cards that have capacities of 4GB and higher are only available in the newer microSDHC format.



microSD Adapter

Many microSD cards and miniSD cards come with adapters that turn the small card into a full-sized SD card. These memory card sleeves or adapters let you use one of the smaller cards in devices that only accept the standard SD size. In addition to offering versatility for use in a variety of devices, the adapter is also helpful for reading the small memory card using traditional SD card readers, such as those that are found in many laptops.



CF (CompactFlash)

Up to 64GB

CF is physically larger in size than SD cards and many other card formats, but it is still very popular today for D-SLR (digital single-lens reflex) cameras. There are two main types of CF cards—Type I (3.3mm thick) and Type II (5mm thick). Within the CF family, there are four main speeds of cards, including the original CF, CF High Speed (using CF+/CF 2.0), a faster CF 3.0 standard, and a faster yet CF 4.1 standard.



Memory Stick

Up to 16GB

Sony launched the Memory Stick card format in October 1998. Like the SD format, Memory Stick describes a family of cards. The family includes the original Memory Stick, the Memory Stick PRO, Memory Stick Duo, Memory Stick PRO Duo, the Memory Stick Micro, and the Memory Stick PRO-HG. Memory Stick cards are often used in Sony devices and can be found in everything from digital cameras to cell phones.



xD-Picture Card

Up to 2GB

Used mainly in digital cameras, the xD-Picture Card format was jointly developed by Olympus and Fujifilm, though other manufacturers also produce and sell the cards today. xD (eXtreme Digital) cards are used in Olympus and Fujifilm digital cameras and Olympus digital voice recorders. Fujifilm also made an MP3 player that used this card format.



What To Do When You Want To Dispose Of Old Electronics

Perpetually updated technologies prompt us all to purchase new cell phones, PCs, televisions, and other shiny devices every few months or years. All of your old electronics are likely somewhere out of sight by now, unless you've been able to save some essential parts to, for instance, refurbish another desktop. In all probability, though, they're currently gathering dust under the stairs, sitting inside their original boxes, or dying a slow death in one of the (too) many landfills where they could leak dangerous chemicals into the earth.

It's important to practice safe and legal methods of discarding electronics, especially if harmful substances inside certain products could be released. These potentially harmful substances include lead (large, old CRT [cathode-ray tube] monitors can contain up to 7 pounds), mercury, flame retardants, and cadmium. Though you may not have considered recycling electronics before, there are numerous local, regional, and national

eCycling programs established to keep electronics out of landfills.

What's Nearby?

Using a recycling center or a store that's close to your community is one of the most efficient means of responsibly disposing of your old electronics. But if you're not familiar with these locations, how do you know where to find them and what types of products they accept? Earth 911 (earth911.com) to the rescue.

At Earth 911, type the name of your electronic device in the search box next to Start Recycling. Then, fill in your ZIP code and click Go. Earth 911 produces an extensive list of locales that offer recycling services, accept donations, or facilitate reuse. Suggestions can include recycling companies, thrift stores, volunteer programs, national CE retailer branches, or academic institutions.

My Green Electronics (www.mygreenelectronics.com) helps you track



down local reuse/recycling facilities in your area. It's as simple as typing in your ZIP code and clicking Go. Search results include mapped location indicators and available contact information for recyclers within a 150-mile radius.

eCycling Everywhere: Computers, Peripherals & TVs

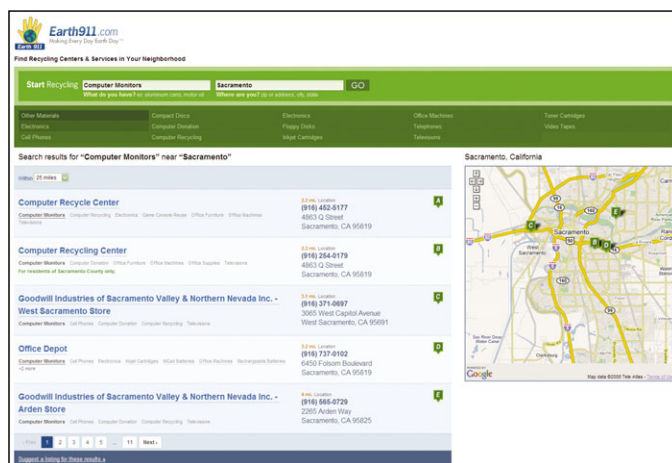
Many global manufacturers and well-known retailers offer variations of recycling or donation programs. Here are a few companies that will take in used computers and/or TVs.

Dell (www.dell.com). Dell adheres to the three R's: recycle, reduce, and reuse. It offers free recycling anytime for Dell-branded products and recycles your old computer/monitor at no charge if you sign up for the free recycling option when you make a new purchase.

Toshiba (www.toshiba.com). If you want to be green, Toshiba is on board with you. It sends you credit if you pass along your old working notebook to them. It will also make sure your old PC is recycled if it has minimal trade-in value. Toshiba complies with the WEEE (Waste From Electrical and Electronic Equipment) directive and the RoHS (Restriction on Hazardous Substance Standard).

Apple (www.apple.com). According to Apple's Environment site, U.S. customers can recycle old monitors and

Search for recycling centers near you at Earth 911 by entering your location as well as the item you would like to recycle.



PCs when they buy a new Mac. Additionally, you can recycle your old iPod. If you do so when you purchase a new model, Apple gives you 10% off.

Gateway (www.gateway.com). Through its trade-in program, Gateway recycles electronics for its customers at no charge and offers you cash for preowned tech products.

Sony (www.sony.com). Sony also gives customers the benefit of trade-in; the company provides credit for particular qualified VAIO PCs, but if your PC isn't worth enough for a trade-in, Sony will recycle it for you. If you have a used camcorder or camera to dispose of, Sony will help you figure out what your trade-in might be worth. Another convenient service is the Green Glove Delivery Program. For example, Sony packs up and recycles your old TV if you purchase a BRAVIA LCD television (32 inches or larger) with home delivery.

Audio, Video & Miscellaneous

Office Depot (www.officedepot.com) is one place to dispose of your old A/V equipment. The Tech Recycling Service is Office Depot's program to "turn tech trash into useful raw materials." You can acquire a recycling box in one of three sizes: Small for \$5, Medium for \$10, and Large for \$15. Check the list of Office Depot's Acceptable Items before you fill your box—this is a wide-ranging list including DVD players, MP3 players, and cables, however, you cannot submit items such as cracked monitors, leaking electronics, or potentially radioactive material (of course).

Keep in mind that Best Buy and Staples also accept your tech trash. Staples charges a \$10 transport and handling fee for large items.

Cell Phones

If you upgrade your cell phone regularly, you probably have a number of old phones lying around. Here are a few providers that offer

programs for reuse, recycle, and charitable causes.

AT&T (www.att.com). At participating stores, you can get involved in the AT&T Reuse & Recycle Program by offering your old phones, PDAs, batteries, and other accessories for sacrifice. Prior to recycling, be sure to cancel your service, clear all contacts, and remove the SIM (subscriber identity module) card.

Verizon (www.verizon.com). The Verizon Wireless Hopeline Program was established to help victims of domestic violence. Verizon collects old phones, regardless of the condition or carrier, and recycles or refurbishes the used equipment, raising money from sales to donate to shelters and national programs.

Sprint (www.sprint.com). You can submit all models and brands to the Sprint Project Connect. This service provides free postage (at Sprint stores) for mailing in wireless phones, batteries, and accessories; the other option is to print a shipping label from tinyurl.com/63fy4u. Sprint Project Connect proceeds support the 4NetSafety program advocating children's Internet safety.

Be sure to check other major service providers to learn about the benefits of their recycling programs.

For The Greater Good

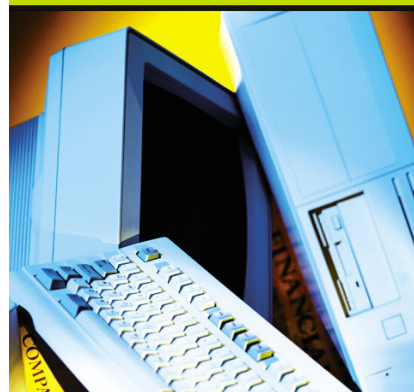
Because electronics require a great deal of production time and energy involving valuable materials (metal, copper, plastic, etc.), recycling, renewing, and reusing products ultimately cuts down on natural resources waste and gas emissions that damage our atmosphere. Remember that recycling is one of many ways you can contribute to the collective effort of being a good steward of our planet. Not only can you properly discard old equipment now, but you'll also gain a broader idea of the options you have for future recycling needs. ■

BY JOANNA SAFFORD

Wading Through The E-Waste Stream

Approximately **2.5 million** tons of consumer electronics (TVs, PCs, peripherals, printers, cell phones, etc.) were discarded to landfills in 2007.

SOURCE: EPA MUNICIPAL SOLID WASTE CHARACTERIZATION REPORT



Wipe The Drive

Before you even consider taking your computer to the appropriate facility, you must back up any important items stored on your PC's hard drive—we can't emphasize this enough. Use CDs or external storage devices, such as a portable hard drive or flash-based drive.

You should not simply format your hard drive because performing this maintenance task does not erase your data; deleting files on your hard drive or moving them to the Recycle Bin doesn't erase them, either. To properly wipe your drive, you need to find a program specifically designed to erase all data; some examples are WipeDrive V5 (\$39.99; www.wipemydrive.com) and EraseYourHardDrive (\$23.95; www.eraseyourharddrive.com).

We recommend that you install this type of program on a separate PC and transfer them to the drive you're recycling via USB drive. If you truly want to prevent anyone from accessing the data on your hard drive again, find a strong sledgehammer and smash away. The goal is to warp the layers on the hard disk, so they're no longer readable. ■

How To Fix Common Problems With Motherboards

You may have heard someone describe a processor as the brain of a computer. To further the analogy, if the processor is the brain, the motherboard is the central nervous system.

A motherboard is a large circuit board that attaches to the motherboard tray inside your computer's case. Every computer component connects to the motherboard in some way. In turn, it connects every component to every other component.

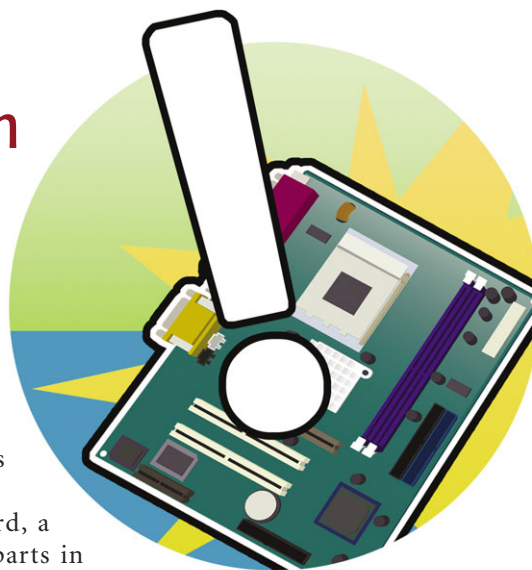
Just as your body's central nervous system enables you to coordinate movement between your eyes and hands or your heart and lungs, a motherboard facilitates communication between the processor and RAM (random access memory), graphics card and audio driver, temperature of the components and

the system fans, and so on. Even mouse clicks and keystrokes require the motherboard to route their commands to the necessary parts of the computer.

Without the motherboard, a computer is just a pile of parts in a box.

General Troubleshooting

It can be tricky to identify if a problem is with the motherboard itself or if it's related to one of the components. For example, the motherboard can certainly be the cause of a boot failure, but it could just as easily be a problem with the hard drive or graphics card. Before you go tearing out and throwing away your



motherboard, make sure the motherboard is actually at fault.

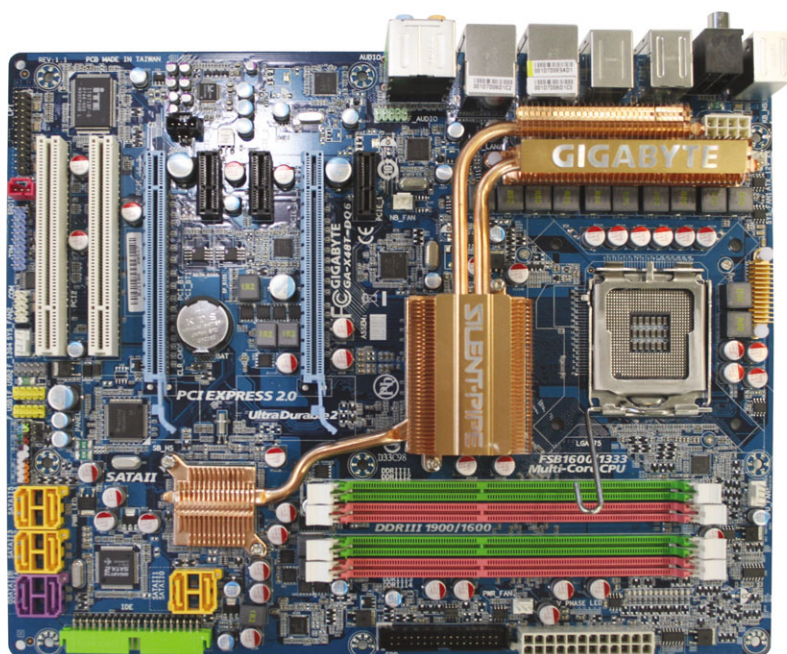
There are a number of things you should check whenever you have a problem you suspect is related to the motherboard. First be sure your motherboard has the most recent driver updates.

Driver Updates

Making sure your motherboard is up-to-date is key to keeping it running properly. Updates fix bugs and improve hardware compatibility, helping to avoid problems before they start.

Drivers are bits of information that keep the various motherboard components working properly. A driver installation disc will be shipped with a new motherboard. However, companies will create newer versions of those same drivers. Manufacturers generally produce driver updates more frequently than BIOS updates, and you can also download drivers from the manufacturer's Web site. To determine your motherboard's manufacturer and model number, look for a label on the motherboard.

Installing new drivers is very simple. Download the most recent drivers from the manufacturer's Web site. (The updates are conveniently dated so you can be sure you're getting the most recent ones.) Double-click the downloaded file. (You may need to unzip it first. To



The motherboard is the central nervous system of a computer. Every component connects to it, including the processor, memory, hard drives, optical drives, and even the mouse and keyboard.

do so in Windows Vista, right-click the file icon and select Extract All. When the extraction completes, double-click the EXE file.) A wizard will appear, and you can follow a few simple commands to complete the updates. You'll need to restart the computer afterward.

BIOS Updates

The BIOS settings are fundamental to the operation of your computer. They're purposefully hard to get to accidentally so that users who aren't sure what settings to change won't accidentally make an alteration that could lead to system instability. From time to time a motherboard manufacturer will create an update for the BIOS of a particular motherboard, which you can download for free from its Web site. Because flashing (updating) the BIOS involves some risk (stopping the update before it completes can damage the BIOS, for example), be certain that you've backed up your important files before attempting a BIOS update.

Flashing the BIOS is a bit more involved than installing new drivers, primarily because these days there are so many different ways to do it. In years past, flashing the BIOS usually consisted of downloading the update, saving it onto a floppy disk, restarting the computer, and running the update from the BIOS. This may still be the best way to do it for your particular motherboard, but many manufacturers now have easier, proprietary (but, by nature, more diverse) methods of flashing the BIOS. Consult your motherboard's manual for instructions on how to flash your motherboard's BIOS.

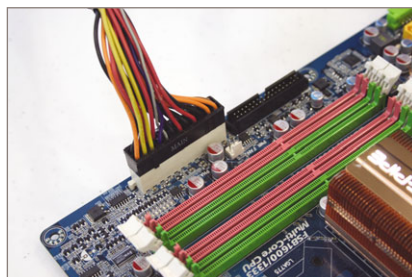
Ensuring that your motherboard is up to date will eliminate most of the possible problems you'll face. The next step is determining if any of your connected hardware is to blame.

Problem: Nothing happens when I press the power button.

Solution: This is a problem most commonly experienced after the installation of a new piece of hardware. It's likely

that you inadvertently bumped the power connector to the motherboard or incorrectly installed the hardware.

Shut down the computer, disconnect the power cord, and then remove the side panel. Touch a piece of metal before rooting around inside the computer, as motherboards are particularly susceptible to static damage. Locate the large 20- or 24-pin plug connecting the motherboard to the PSU (power supply unit) and check to be sure the connection is solid. Note any other power connectors and check them, as well; if one of them has been jostled loose, the motherboard or a component may not be receiving enough power. This can create boot problems and could also fry the motherboard or the component.



If you've recently been working inside the PC case and encounter a situation where the computer won't start, check to be sure the large power connector hasn't come loose.

Also check to be sure that the RAM sticks are seated properly. If the RAM sticks aren't snugly connected to their slots with the tabs securely fastened, you won't be able to boot at all.

It's also possible that the power button itself is broken. It's wise to open up the case and check this final item before calling it quits and buying a new motherboard.

Problem: My computer emits loud beeps when I first turn it on.

Solution: A single beep is normal—this is the POST (Power On Self Test). Your computer conducts this test every time your computer boots. The

beeps are actually a code to let you know the status of the test.

However, if you hear beeps that are different from the ones you normally hear, immediately press and hold the power button to shut the computer down. These alarms are letting you know that something is amiss.

A common culprit is the graphics card. Check to be sure the graphics card is seated properly. Use gentle but firm pressure, as described for the installation of RAM. Some graphics cards need to be connected directly to the power supply rather than getting their power from a motherboard bus. Check the card to see if there is a plug that matches one on the PSU. If a graphics card doesn't have the necessary power, it will squeal when you try to boot.



Some graphics cards need a connector from the computer's power supply. If it's not connected, it'll cause loud beeps when you next try to boot the computer.

If this doesn't solve the problem, consult your motherboard's manual (which you can download from the manufacturer's Web site if you lost it) or check with the manufacturer to determine what the beep codes mean. It could be a serious problem that you need to address immediately. For example, a short beep followed by three long ones indicates a problem with the RAM. Five short beeps probably means that the processor is the problem. There are diagnostic devices you can purchase that display error codes on a two-digit LED display, although some motherboards now have these onboard.

Problem: I installed a new piece of hardware that needs its own power connection, and even though I checked all the connections to make sure they're correct and secure, my computer is experiencing random shutdowns and restarts.

Solution: As you periodically upgrade your computer's components, it's easy to forget that your PSU (power supply unit) needs to be able to supply enough power to all those components. Sometimes the PSU simply doesn't have enough total wattage to run every piece of hardware you have installed. This problem will sometimes crop up if you start swapping out older parts for newer, faster, more power-hungry components and your PSU is too weak to handle it all.

Even if you add up the wattage needs of all your components and find that the PSU is rated to handle that many watts, bear in mind that some power supply manufacturers' wattage ratings may not actually be sufficient to maintain a consistent power flow up to that number. Just to be safe, your PSU should be rated comfortably higher than the combined wattage of your components. For example, if your hardware needs a total of 400 watts of power, it's wise to spring for a PSU that can supply 500 or 600 watts.

To check whether or not the PSU is to blame, swap out the new parts for the older parts. You want to set up your hardware to reflect the last stable configuration. Boot up your computer, and if everything is back to normal with the old hardware configuration, you probably need to upgrade to a bigger PSU.

Before you purchase another PSU, double-check to be sure the one you want to buy has no proprietary connections that would prevent it from being compatible with your motherboard. This is not a common problem, but it's worth your time to check to spare yourself a potential headache later on.

Problem: I installed new memory to increase my computer's performance, but the PC runs slower than it did before.

Solution: It's common for memory to come in kits with two matched DIMMs (dual in-line memory modules). If one of the DIMMs isn't seated properly or is in the wrong slot, the computer won't recognize it. Therefore, you would only be benefitting from one of the two memory modules.

You can check to see if all the memory you installed is actually working. Click Start, Control Panel, System And Maintenance (or Performance And Maintenance in Windows XP), and System. Under System, you can see how much RAM the computer recognizes. If this amount is less than what you installed, at least one of the DIMMs needs to be adjusted. (In WinXP, the System Properties window will appear. Click the General tab and look under Computer for the amount of installed RAM.)



Make sure your power supply has enough juice to comfortably meet the wattage needs of all your components.

As many motherboards have up to four slots for memory, you have to be careful when replacing DIMMs so that you put the new sticks in the correct slots. Most motherboards have color-coded memory slots. For example, if there are four slots, two of them might be blue while the other two are black. Generally, if you have two DIMMs, you'll put one each in slots of the same color. Double-check your motherboard's manual to be sure that's the case on your motherboard. Also, check to see which two slots you're supposed to fill first, as you can't just pick either color. A virtually foolproof way to determine

which slots are correct is to note where the old memory sticks were and put the new ones in the same slots.

When you install memory, make sure the notches on the slots and the DIMMs match and that the tabs on the slots are open and out of the way. Press gently but firmly on the memory until it locks cleanly into place. The tabs will close partway, and if you installed the memory correctly, you'll be able to easily lock the tabs into place. If you have to apply too much pressure or if the tabs are hard to close, the memory is likely not seated properly. Keep in mind that motherboard and memory modules are made of thin pieces of plastic and can break easily if you place too much pressure on them.

Problem: I installed a new piece of hardware, but Windows doesn't detect it.

Solution: The first thing you should check is whether or not the hardware has been connected to the motherboard correctly. In the case of a hard drive or optical drive, be sure that a data cable (such as a SATA cable) and a power cable (such as an eSATA cable) are connected. If it's a new graphics card or audio card, be sure it's seated correctly and has power.

Second, if the device came with an installation or driver disc, be sure to install it. If that doesn't solve the problem, check the device manufacturer's Web site to see if there are any more recent updates available. Download and install any that you find.

In the case of a graphics card or audio card, you may need to force the motherboard to switch from using the integrated audio and graphics on the board itself to the card you installed. This needs to be done through the BIOS. Because every BIOS is different—especially for a task such as this—consult the motherboard's manual for how to make the change on your particular board. ■

BY SETH COLANER

How To Install A Keyboard

The keyboard is perhaps one of the most overlooked components of any computer. A good keyboard won't make your PC run any faster, but just try authoring a blog post, writing an email, or even entering a Web address without it. Whether you're looking to replace your existing keyboard or connecting a keyboard to a new PC for the first time, we'll walk you through the process and show you what you need to know.

The Basics: What Kind Of Keyboard Do You Need?

There are two types of physical keyboard connections: USB and PS/2. The flat, rectangular USB connection is the newer of the two. PS/2 connectors are small, round connectors with six pins on the inside. If you're in the market for a new keyboard, there are a few things you should consider when buying.

USB keyboards are becoming increasingly popular. Older systems (those shipping with Windows 98) have at least a couple of USB ports. Newer PCs may have eight or more USB ports. Unlike PS/2 keyboards, you can disconnect a USB keyboard and connect a new USB keyboard without turning off the PC. Because so many other external devices, including printers, scanners, digital audio players, digital cameras, and external hard drives, also connect via USB, however, you may not want to devote a USB port to a keyboard.

PS/2 ports, on the other hand, are exclusively for keyboards and mice. Although PS/2 ports are common on most desktop PCs, some newer models, especially compact or "all-in-one" models, are beginning to ship without

PS/2 ports. Laptops also do not generally include PS/2 ports (although if you have a docking station it may include a PS/2 keyboard port). Unlike USB ports, you should turn off the computer before removing or connecting PS/2 keyboards.

Many keyboards support both USB and PS/2 connections. This is usually through a USB-to-PS/2 adapter. The keyboard's USB connector plugs into the adapter, which then plugs into the computer's PS/2 port. Because you're using the PS/2 port to connect the keyboard to the PC, the same rules apply as to any other PS/2 keyboard (namely, the computer should be off when you connect or disconnect the keyboard). If your keyboard doesn't include a PS/2 adapter, you can buy one from most electronics stores for around \$5.

PS/2-to-USB adapters are also available for connecting a PS/2 keyboard to a USB port, but they generally do not work as well. Keyboards connected in this manner may not be recognized by the computer if you use a cheap, passive adapter. Converters that actually convert the keyboard's PS/2 signal to USB equivalents work better, but they're harder to find. If you want the flexibility of using either PS/2 or USB, we suggest buying a USB keyboard and using a USB-to-PS/2 adapter.

Locate Your Port

After you've selected a keyboard, you'll need to locate the proper port



and connect the keyboard to your PC.

Generally, both USB and PS/2 ports are located on the back of the PC, although you may have additional USB ports elsewhere on your PC, as well.

USB. As mentioned previously, a variety of external devices connect to the computer via USB. As a result, most new computers include several USB ports, with at least a couple of ports located on the back of the PC in what's referred to as the I/O (input/output) panel. The I/O panel is where most external devices, such as your monitor, speakers, and network cables, connect to the PC. We recommend using these rear USB ports for connecting a keyboard even if you have additional USB ports elsewhere on your PC. This way, more easily accessible USB ports are free for external devices such as digital cameras, MP3 players, or external hard drives.

PS/2. The computer's PS/2 ports are also located in the rear I/O panel. If your desktop PC is a tower, the PS/2 ports are usually near the top of the I/O panel. If you have a desktop model that lays flat on the desk, the PS/2 ports are usually on the left side of

the I/O panel. You should have one PS/2 port for the mouse and one for the keyboard.

Unlike USB ports, PS/2 ports are not interchangeable. The keyboard will not operate properly if connected to the mouse PS/2 port. The keyboard port is generally closer to the motherboard. On a tower configuration, this is the left PS/2 port while on a desktop-style configuration, the keyboard port is generally on the bottom. Many manufacturers color-code PS/2 ports and connectors. When color codes are used, purple designates the keyboard PS/2 port. In addition to color codes, some manufacturers include a small keyboard or mouse icon next to each PS/2 port.

Make The Connection

Once you've located the proper port, you're ready to plug in the keyboard. However, we do recommend slightly different procedures for PS/2 and USB keyboards.

USB. One benefit to USB is that you can plug in a USB keyboard while the computer is still running. Nonetheless, if you're removing an old PS/2 keyboard, we recommend shutting down the PC before disconnecting the old keyboard.

The USB connector only fits into the port one way. Do not force the USB connector into the port. If the connector does not slide into place, simply turn the connector around and

try again. Make sure you're inserting the USB plug straight into the port.

If the USB keyboard doesn't work immediately, give it a few minutes (Windows may need to load a generic keyboard driver [software that lets Windows communicate with the new hardware] before you can use the keyboard). If the keyboard has any advanced features, such as special multimedia buttons for adjusting the sound or skipping through music tracks, you'll need to install the accompanying software before you can use these special features. If you've misplaced your keyboard's software, you can usually download the required software from the manufacturer's Web site.

The installation procedure is going to vary from one manufacturer to the next, so we recommend you read the installation instructions that should accompany the keyboard. Generally, however, you should be able to insert the CD into your CD-ROM drive and select the Install option when prompted. Follow directions provided on the CD and provide the required information when prompted. Generally, default options provided by the installation wizard should work fine.

PS/2. If you're connecting a PS/2 keyboard, we recommend you start by shutting down the PC if it's not already off. You can then remove any existing keyboard and plug in the new PS/2 keyboard. As with USB ports,

PS/2 ports go in only one way. If the connector doesn't slide into place, rotate the PS/2 connector and try again until the connector slides into place.

Once the keyboard is connected, you can turn on your PC. The PS/2 keyboard should work right away, but as with USB keyboard, you'll need to install the included software to use any advanced features.

Special USB Issues

On some systems, a USB keyboard may not operate outside of Windows (for instance, a USB keyboard may not work properly in DOS or may not allow you to change your PC's BIOS [Basic Input/Output System] settings). This is because older PCs may not support USB keyboards, relying on Windows to provide the necessary USB support.

To enable USB keyboard support, you need to boot into the system's BIOS using a PS/2 keyboard. To access the system's BIOS settings, you need to press a specified key before the computer begins booting Windows. F2 and DELETE are two common keys, but every system is different (consult your system documentation or watch as your system begins to boot for instructions). You may need to press the correct key multiple times before it registers. Once the computer begins booting Windows, it's too late to access the BIOS setup menu.

USB ports can connect a wide variety of devices aside from just keyboards. They have a flat, rectangular shape unlike the round PS/2 connector. Like the PS/2 port, the USB connector only fits into the port one way.



The PS/2 connector is a classic keyboard connector, often purple in color. It is a round, small connector featuring six pins. It plugs in to the port only one way.



Once you're into the setup menu, you should see instructions telling you how to navigate and make changes (again, each system is different). Look for an option regarding USB Emulation, USB Legacy Support, or USB Keyboard Support and enable this option. You may need to look through some of the submenus to find the proper option. Save your settings and reboot. Your USB keyboard should now work properly outside of Windows. Note, however, that not all older models support USB keyboards.

Wireless

Wireless keyboards are becoming increasingly popular. For the most part, you install a wireless keyboard the same way you install a USB or PS/2 keyboard only, instead of connecting the keyboard directly to the PC, you connect a wireless receiver to the PC.

Wired keyboards are able to draw power directly from the PC's PS/2 or USB port, while wireless keyboards have to rely on battery power to operate. Before connecting the wireless receiver, insert the proper batteries into the keyboard. We recommend using rechargeable batteries (and make sure you have extras charged up so you don't have to wait for the old ones to recharge before you can use your keyboard).

With the batteries installed, you can connect the wireless receiver according



Both PS/2 and USB ports are usually located on the back I/O panel of the PC. The circular PS/2 port is designated not only by the standard purple color, but also by a small keyboard icon. The two USB ports are located directly below the keyboard PS/2 port.

to the instructions above. It's best to place the wireless receiver at least 8 inches from your desktop case and your monitor to avoid interference.

The wireless receiver looks the same as any other keyboard as far as Windows is concerned. As a result, even a wireless keyboard should work properly without installing added software. Once again, however, you'll need to install the software to use any added features.

Bluetooth

Bluetooth is another type of wireless connection. Many laptops and

some desktop PCs include an integrated Bluetooth receiver. This means there's nothing to physically connect to the computer.

To connect a Bluetooth keyboard on a Vista PC, open the Windows Control Panel and click Hardware And Sound. Next, click Bluetooth Devices. Click the Add button in the lower-left corner of the Bluetooth Devices window.

With the batteries installed, press the Connect button on your keyboard (this is usually located on the underside of the keyboard) to make it discoverable. This allows Windows to see the keyboard so that you can pair the keyboard with the PC. On your PC, choose My Device Is Set Up And Ready To Be Found. Click Next.

The keyboard should appear in the Add Bluetooth Device Wizard window. Select the keyboard and click Next. When prompted, select Choose A Passkey For Me and click Next. Windows will generate and display a passkey. Type the passkey specified on the Bluetooth keyboard (do not use the keyboard's keypad when entering the passkey). No characters will appear on the screen when typed, but if you make a mistake, you can use the Backspace key. You must enter the passkey within 30 seconds. If you don't enter the passkey within 30 seconds, click Back and click Next again. Once the passkey is entered, the keyboard should be paired with the PC. Click Finish and follow any on-screen instructions.

Write On

Whether you're wired or unwired, PS/2 or USB, wireless or Bluetooth, you now know everything you need to know about connecting your keyboard to your PC. Sure, it won't make Photoshop run any faster, but hopefully that shiny new keyboard will look a whole lot better than the dusty old one. ■

BY CHAD DENTON

USB-to-PS/2 adapters sit between a USB keyboard and a desktop's PS/2 port. Because many other types of peripherals can connect to your desktop using USB, you can use an adapter to save your USB ports for other devices.



FAST FIXES

Security Update For MSXML 4.0 Service Pack 2

Problem: A Security issue in MSXML (Microsoft XML) Core Services could let an attacker compromise your Windows-based system.

Solution: To protect your computer against attack, go to www.microsoft.com/download, type **KB954430** in the Search field, and click Go. From the results list, click the MSXML 4.0 Service Pack 2 (KB954430) link. On the following page, click Download, found in the blue box. Save the file to your hard drive and then locate the file. Double-click it to begin the installation, and then follow the on-screen directions to install the file. Restart your computer when it is complete.

www.microsoft.com

FileMaker Pro 9.0 SSL Updater

Problem: An issue with SSL (Secure Socket Layer) networking certificate could cause connection failures due to that file's invalid end dates.

Solution: To update FileMaker Pro with this fix, browse to www.filemaker.com. From the Support drop-down menu at the top, select Downloads. There you will find recent software updates. Make sure Windows is chosen if you're on a Windows machine and then click the Download link next to FileMaker Pro 9.0v3 Advanced SSL Updater or FileMaker Pro 9.0v3 SSL Updater, depending on if you have the Advanced software or not. Read the instructions before you click the Download Now button at the bottom of the page and note that you may be prompted to insert your original installation CD. Once downloaded, double-click the updater program and proceed as directed. Once you see the message confirming success, quit the updater and fire up FileMaker to verify the update was a success.

www.filemaker.com

Mozilla Firefox 3.0.4

Problem: Firefox has issues involving saved passwords and saved proxy settings.

Solution: Download and install an update (version 3.0.4) that resolves the password and proxy problems, as well as several security and stability issues. Go to www.mozilla.com and click the Download Firefox - Free button. That should automatically begin your download. It will also show you the four steps to install: Save the file, give permission to launch the setup wizard, follow the wizard's steps, and look for the Firefox icon to begin browsing anew.

www.mozilla.com

Microsoft DirectX

Problem: Previous versions of Microsoft's DirectX were found to have minor bugs and security issues.

Solution: To improve the multimedia experience on your PC, including updated graphics and more immersive audio, go to www.microsoft.com/download and get the DirectX End-User Runtime. Type **dxwebsetup** in the Search box and click Go. On the page of results, click DirectX End-User Runtime. On the following page, click the Continue button in the gold Validation Required box. Follow the instructions to complete validation. Next, click the Download button and save the file to your hard drive. Once the download is complete, locate the file and double-click it to begin the installation. Follow the on-screen directions to install the file. When it is complete, restart your computer.

www.microsoft.com

Windows Mobile 6.1 Hot Fix For Sending POP & IMAP Email

Problem: If a mobile user doesn't use an alternative outbound email

server, Windows Mobile 6.1 can corrupt account configuration details.

Solution: To ensure that Windows Mobile 6.1 takes appropriate action when it detects a blank value for the Alternate SMTP (Simple Mail Transfer Protocol) server, update the software using a patch. Type **KB958639** in the Search field at www.microsoft.com/download and click Go. From the results list, click the WM 6.1 Hot Fix For Sending POP And IMAP E-mail link. On the following page, click Download Files Below, found in the blue box. There are two ways to apply this fix to your mobile device. You can follow the instructions to run an MSI file on your computer, which requires you to connect your mobile device to your PC, wait until ActiveSync establishes a connection, download the MSI file to your computer, and run it from the hard drive. Alternatively you can download the provided CAB (cabinet) file to your mobile device and run it from there.

www.microsoft.com

FIX OF THE MONTH

Windows "Stop Error" Update

Problem: After installing security update KB954211 (MS08-061) for certain Windows systems, you may receive a 0x0000008e Stop error.

Solution: To resolve this issue, go to www.microsoft.com/download, type **KB959252** in the Search field, and click Go. In the results list, click the link that matches your operating system: Windows XP, WinXP x64 Edition, or Windows Server 2003. On the following page, click Download. Save the file. Once the download is complete, locate and double-click the file. Follow the on-screen directions to install the file. Restart after complete.

www.microsoft.com

Q & A

Need help with your hardware or software? Looking for simple explanations on technical subjects? Send us your questions!

Get straight answers to your technical questions from *Smart Computing*. Send your questions, along with a phone and/or fax number, so we can call you if necessary, to: *Smart Computing* Q&A, P.O. Box 85380, Lincoln, NE 68501, or email us at q&a@smartcomputing.com. Please include all version numbers for the software about which you're inquiring, operating system information, and any relevant information about your system. (Volume prohibits individual replies.)



Q My Taskbar is three times the normal size and unresponsive. This is the second of two computers running Windows XP Professional affected by this problem. I finally backed up my files and reinstalled the OS (operating system) on one unit. Now the second computer has the problem, and we don't know how it happened or how to cure it. I tried turning off the Taskbar in the Control Panel, but it returned with a vengeance. Now I have three rows that refuse to go away.

A Although most users are familiar with the Taskbar as a single row at the bottom of their screen, it's far more flexible. As you've accidentally discovered, you can have more

than one row, and you can even reposition the Taskbar to any edge of your display by simply clicking and dragging it.

We're not sure how your computers had their Taskbars modified, but we can help you fix the problem. First, right-click the Taskbar and make sure the Taskbar is unlocked. (If there is a check mark next to Lock The Taskbar, click it to remove the check mark.) Next, move your mouse to the top edge of the Taskbar until it switches from a pointer icon to a two-headed arrow. This is Windows' way of showing that you can expand or contract a screen element. Next, move the Taskbar down until it only occupies one row. Right-click it again and enable Lock The Taskbar to prevent it from being adjusted accidentally.



Online

Q I have saved incorrect login information for a couple of Web sites. I can't find any way to delete these and enter the correct ones. I am using Firefox 3.0.3.

A To delete your incorrect Web site credentials in Firefox, click Tools, Options, and Security. Under the Passwords section is a

Saved Passwords button. Clicking this will bring up a list of all the Web site/password combinations that Firefox has saved. Select the incorrect entries and click the Remove button. Unfortunately, there's no way to edit the password, so you'll need to revisit the original Web site to have Firefox store the proper password.



Utilities

Q I am a senior who cannot afford to buy a lot of protective software for my computer. I therefore was interested in the Comodo firewall, which you rated so highly. However, I wonder if it is so good, how can they afford to give it away free?

A According to Comodo's CEO (www.comodo.com), the reason they give away a free version of their software firewall is to build brand awareness of the Comodo name and to help users secure their home computers. Their motto is "Creating Trust Online."

Comodo sells Web site security certificates that encrypt all of your data when you make a purchase from a secure Web site. Comodo also sells a wide variety of security services to companies, so from their point of view, distributing a free version of their software is a great way to get inexpensive publicity.

Comodo also uses a fairly common strategy for selling software that has been dubbed the "freemium" model. Vendors using this technique will have two versions of their software—a full-featured package that costs money and a trimmed-down version that is

free. This business model is predicated on the hopes that you'll try out the free version and eventually upgrade to the full package.

Comodo also encourages you to install its SafeSurf Toolbar during the installation process. By default this sets Ask.com as your search provider. Although we're not privy to any financial arrangements between Comodo

and Ask.com, it's normal for search engines such as Google and Ask.com to pay application developers for steering customers to their search engines. The popular Firefox browser receives funding from Google this way, and Apple receives compensation, as well, for making Google the default search engine in its Safari Web browser.



Software

Q I am the librarian of a professional concert band and started a database of all our music about five years ago, using the database program that came with the computer, Microsoft Works. When one of the band members asked for a copy of the library, I sent him an attachment that he couldn't open with Microsoft Excel. I cannot understand why a Microsoft product cannot open its own files. I sent the same attachment to someone with a Mac computer, and he was able to open it.

A The database application in some versions of Microsoft Works uses a file format that is incompatible with the Excel

spreadsheet application. The easiest way to provide a copy that your bandmate can open in Excel is to open the original file in Microsoft Works, click File, click Save As, and select the .XLS file extension. The default is .WDB, but you need to use Excel's native file format. Depending on how you've designed the database, the formatting of the file may appear differently in Excel than it does in Works; after all, these are different programs designed to work with information in a different style.

As to your friend with a Mac, our hunch is that he has a copy of the Macintosh version of Works. This would explain his ease in opening the file.



Windows

Q I use WinXP. I'm signed up for automatic updates from Microsoft, but I only use Firefox and Thunderbird. Do I need these updates, and am I getting them?

A Although using Firefox and Thunderbird instead of Internet Explorer and Outlook Express can improve your overall security, it's important to keep all the software on your computer up-to-date.

The easiest way to view your Windows update history is by visiting update.microsoft.com. (You'll need to use Internet Explorer to access this site.) On the left side of the Web site, you'll see a link labeled "Review your update history." This will display all the updates that have been applied to your system.

If you don't see any patches within the last month or so, you might need to check your Windows Update configuration. To do so, click Start, Control Panel, and Security Center. Underneath the Manage Security Settings For

heading, select Automatic Updates. Next, select an update schedule. We recommend you use Automatic and make sure it's scheduled for a time when your computer will be on.

While using Windows Update will help protect your computer's operating system, be sure that you also have Firefox and Thunderbird configured to automatically update. Many security problems come from vulnerabilities in these types of apps, so keeping them up-to-date is an essential part of protecting your computer.

To configure Firefox for automatic updates, launch Firefox and click Tools, Options, and Advanced. Select the Update tab and under the Automatically Check For Updates To heading, make sure that you've marked the checkbox next to Firefox. Also make sure that the radio button is marked for automatically downloading and installing the updates. Follow these same steps to enable automatic updates for Thunderbird. Both applications receive frequent updates. ■

Frequently Asked Questions

Answers to users' most common questions about **Print Servers**

You can only access network devices that are within the IP address range (subnet) supported on your network.

FAQ Why can't I access my print server's IP (Internet Protocol) address to set it up? What IP address should I assign to the print server?

You can only access network devices that are within the IP address range (subnet) supported on your network. For example, your network may be configured to use an IP address range from 192.168.0.0 to 192.168.0.255. If the print server ships with a default address of 192.168.1.10, none of your PCs can access the print server's Web-based management tools. The trick is to temporarily change the IP address of one PC on your network so that it resides on the same subnet as the print server. Then you can access its management tools and reconfigure the print server for your own network.

In Windows Vista, click Start, Network, Network And Sharing Center, and Manage Network Connections. Right-click the network connection that you are using and select Properties. Highlight your TCP/IP (Transmission Control Protocol/Internet Protocol) connection from the list of protocols and click the Properties button. By default, your PC obtains an IP address automatically. Opt to manually enter an IP address and then enter an address that is on the same subnet as the print server. For example, if the print server uses 192.168.1.10, try an IP address for your PC such as 192.168.1.20 (basically, anything from 192.168.1.0 to 192.168.1.255 except for 192.168.1.10, which is already used by the print server). Also, enter a subnet mask of 255.255.255.0. The subnet mask is not part of the IP address, but it "masks out" the upper three segments of the IP address. This simplifies network addressing, which is especially helpful for efficient addressing in small networks. Now, click OK and OK again to apply the new IP address settings.

You should now be able to open your Web browser and enter the print server's IP address in the Address bar, and the print server's Web management application should appear. Change the print server's IP address to another static IP address within your normal network. Once you've set up the print server, repeat the steps above and reset your PC to receive an IP address automatically.

FAQ Do print servers need printer driver updates? What happens if a manufacturer releases a new version of my printer driver?

It's the PC that may need the printer drivers, not the print server. When you go through the steps to add the newly networked printer to your PC, you may need the printer's driver CD as part of that setup process. A printer manufacturer may release a driver update to correct bugs or improve performance, so you can easily visit the manufacturer's Web site to download and install the new printer driver on all of the PCs where the networked printer has been installed. However, printer drivers are rarely considered critical updates, so unless you're experiencing a specific printer problem that a new driver version promises to fix, you generally don't need to worry about new printer drivers.

FAQ Do I need to change the security settings of my network users in order to access the print server?

The PC's security settings can affect access to the networked printer. In most cases, printing to a networked printer will require light to moderate security settings in products such as those from Symantec, McAfee, F-Secure, and others. If your PC's security software is too tight or restrictive, it may prevent data transfers between that PC and the print server—essentially cutting off the networked printer. ■

Are you having trouble finding a product or getting adequate service from a manufacturer? If so, we want to help solve your problem. Send us a description of the product you're seeking or the problem you're having with customer service. In billing disputes, include relevant information (such as account numbers or screen names for online services) and photocopies of checks. Include your phone number in case we need to contact you.

Letters may be edited for length and clarity; volume prohibits individual replies.



Write to:
Action Editor
P.O. Box 85380
Lincoln, NE 68501-5380

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Canon Refunds Payment & Nova Development Sends A Rebate Check

I ordered a Canon PIXMA printer for \$129.98 on July 5, 2008. The next day, I received a notice from Canon that the printer was backordered. Because I was leaving and going to be gone for several weeks, I canceled the order. Canon billed me for the printer and did not ship the printer, and I cannot get them to refund my money. I have telephoned twice and each time was asked to fax a copy of my credit card statement, which I did. I was told that they would get back to me within 24 hours, and I have heard nothing. I need some help getting my money back from Canon. Thank you so much.

**Joan
Bend, Ore.**
.....

We contacted Joan on Oct. 31, 2008, to see if she had made any progress with Canon. She informed us that there was still no word from Canon regarding her refund. We emailed our contact at Canon on the same day and waited nearly a week without response. We emailed a second contact on Nov. 5 but again received no response. On Nov. 11, we called the main support number listed on the Canon Web site. The representative we spoke to instructed us to have Joan call him directly to relate her issue. When Joan called back, the representative was able to locate her faxed information and forward it to the accounting department. Joan called the next day with news that someone from the accounting department had contacted her and reversed the charges on her credit card.

On Jan. 5, 2008, I purchased Greeting Card Factory Deluxe, which came with a \$20 rebate from Nova Development. I sent in the required forms for the rebate and still have not received it. I called Nova in February, a month after purchasing the software,

and a rep said the rebate would arrive in six to eight weeks, so I waited. After several calls, I received an offer to take an electronic gift card for Nova's site, but I am not interested. Nova claims that's what I wanted, but I want a rebate check. On July 9, I made another call to Nova, and a rep said Nova would expedite the rebate to me. As of Aug. 20, I have received nothing. I appreciate any help you can give.

**Herman
St. George, Utah**
.....

When we talked with Herman on Nov. 5, 2008, he informed us that there had been no news from Nova Development. We emailed Nova and received a return email indicating that, for rebate issues, we needed to call customer service. We called the customer service number included in our email and asked for the rebate department. The representative that we spoke with told us that the rebate Herman was to receive was an electronic gift card and that it had been sent to him via email on April 15. Because Herman stated that he wanted a refund check, not an electronic gift card, we called him to ask if he had received the email. He had not. Next, we called the customer service number listed on the Web site, and the person we spoke with told us that Herman should fax a copy of the rebate registration page he sent in the mail. We contacted Herman again and asked him to fax the form to us first, so we could look it over. When we received it, we noticed that at the very bottom of the page, in small print, it said, "You have chosen to receive a Nova Development electronic gift card." When we informed Herman of the mistake, he said he must have selected the option without knowing. We called Nova's rebate department again and asked if the option could be reversed. The representative we talked to cancelled the electronic gift card and told us that Herman would receive his rebate check in four to six weeks. ■

Saving The Wireless Day

Running a home network can be a thankless task. No one notices how quickly you can get last-second directions to a friend's new house. Teenagers will never thank us for making it easy to look up movie times (or for anything else). Not that I normally mind, because I enjoy the benefits of modern networks more than anyone, but the invisible work of managing wireless networks can get frustrating when things don't go well. Pay close attention and then make sure the person who keeps your network running gets a hug.

I'm still getting a feel for our new house's signal vagaries. My cell phone works in the driveway and the basement family room but not in the garage separating them. Cordless phone signals extend to the back bedrooms and (sometimes) my home office but not to the front bedroom and certainly not to the porch. Our Wi-Fi signal is no less quirky. We originally had the router set up next to the DSL (Digital Subscriber Line) modem and phone jack at the back of the house, but the signal to the office was poor. I grabbed a longer Ethernet cable and moved the router along the wall toward the center of the house. It's still not perfect, but the signal is much stronger. Try moving your router if you're having similar problems. Also make sure that your network card and router are using the highest-level standard that both support. If your router supports 802.11n (range up to 200 feet) but your wireless NIC (network interface card) is 802.11g or 802.11b (max 125-foot), consider an upgrade. Of course, some things are outside your control. Our place is an old brick and stone structure combining plaster and drywall on the inside, with lots of different legacy wiring, plus strange nooks and crannies. If you're in the same boat, consider structural limitations when placing the router and try to limit the obstacles between that spot and where you use the signal most.

Even within range, sometimes my signal is strong, sometimes it's weak, and sometimes I can't connect at all. I don't usually worry about weak signals if performance is OK, and the state of my wireless connection doesn't matter when I'm writing in Word or managing my budget spreadsheet. Even when I'm printing across the network or surfing the Web, I'm not concerned as long as the experience isn't painfully

slow. But you'll have to step in when things bog down noticeably or you lose connectivity. Most of the time, I just reboot my machine, cycle the power on both the modem and DSL, and that takes care of things. If you have longer-term problems, remember my advice above about structural impediments to wireless signals. Depending on

your wireless technology and the frequency of your cordless phones, Bluetooth devices, microwave oven, and garage door opener, interference can also cause trouble for your network. Don't forget to make sure you're on the right network in the first place. My neighborhood has several wireless networks with open access. Sometimes my, or a guest's, computer will cycle between one of those and my own (encrypted) network.

Security is another constant concern—note the above regarding the preponderance of wireless neighbors. I like and trust my neighbors, but that doesn't mean I want their kids browsing my investment reports or downloading movies over my Internet connection. The first step when setting up my network was encrypting the wireless signal with a strong passkey. It seems obvious and easy, but I'm always amazed by how many open networks I see out on the airwaves, so it bears repeating. Encrypt your wireless signal and use a strong passkey. Wireless security isn't perfect, but that's no reason to forgo protection from amateurs and casual snoopers. Your Home Depot deadbolt and window locks probably won't stop an accomplished burglar, either, but you still use them. You should also avoid sharing sensitive files. I share only my printer, Music drive, and a specific "shared" folder on a secondary hard drive, which I use to read, write, and transfer files remotely. You won't easily get anything out of my network beyond an Internet connection and files I'm comfortable putting at risk. As I keep telling myself, even temporary contentment is something. ■

BY GREGORY ANDERSON

Gregory Anderson is a regular contributor to Smart Computing and several other technology publications. He keeps a sharp eye (with the help of thick glasses) on computing trends and enjoys working with geeks of all stripes—most of the time. Share your wireless woes at gregory-anderson@smartcomputing.com.





G1

\$399.99 | T-Mobile
www.t-mobile.com

In October 2008, the mobile phone industry waited with excitement as T-Mobile released the new G1, which is the first phone to run the new Android operating system.

This free, open platform for mobile phones has the potential to change the industry with its numerous unique and useful features.

Similar to Apple's popular iPhone, Android has its own application store, Android Market, where you can easily find and download software for the phone. This cool smartphone uses finger controls and a trackball for navigation. It is also focused on multimedia, with a 3MP (megapixel) camera, a 1GB microSD (Secure Digital) card included in the box. The phone also supports Bluetooth and Wi-Fi. ■

by Jennifer Johnson



invisibleSHIELD

\$9.95 to \$54.95 | ZAGG | www.zagg.com

If you're as rough on your portable electronics as I am, invisibleSHIELD is for you. This clear material adheres to your device, protecting its screen (and most of its body) from dings and dirt. Thanks to the clear, illustrated instructions, I applied the invisibleSHIELD to a smartphone in minutes. And because it's clear, people don't notice the protective material until I point it out.

ZAGG offers invisibleSHIELD for many portable devices, including DAPs (digital audio players), notebooks, and smartphones. ■

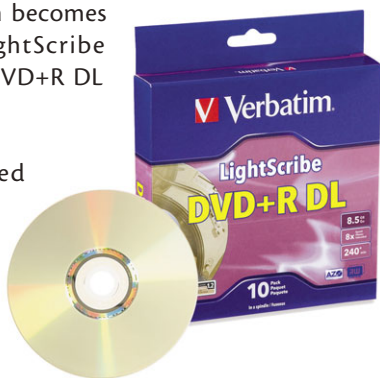
by Joshua Gulick

LightScribe DVD+R DL 8X

\$25 per 10 | Verbatim | www.verbatim.com

With a LightScribe-capable burner and media, you can make professional-looking monochrome DVD and CD labels with graphics and text. Now, at long last, Verbatim becomes the first to offer LightScribe media in the 8.5GB DVD+R DL (dual-layer) format.

The new bronze-hued discs are compatible with LightScribe 1.2, which offers better contrast and faster burning times than the original version. The company also sells 4.7GB DVD-R and DVD+R LightScribe media in blue, red, green, yellow, and orange. ■



by Marty Sems

SkipDR Premier

\$44.99 | Digital Innovations
www.digitalinnovations.com

The SkipDR is the gadget that comes to the rescue when your DVD skips on movie night. It cleans the disc and even repairs scratches by rubbing off a tiny sliver of the DVD's protective material. (It grinds off just enough material to remove the scratch without damaging the disc.) It can't fix huge scratches that rip apart the data layer, but you'll be surprised by how many scratches it can handle.

I've always liked the SkipDR (and I've used it successfully on a number of DVDs). It now has an important feature that previous versions lacked: a power adapter. Freedom from batteries is the new icing on the SkipDR cake. ■



by Joshua Gulick

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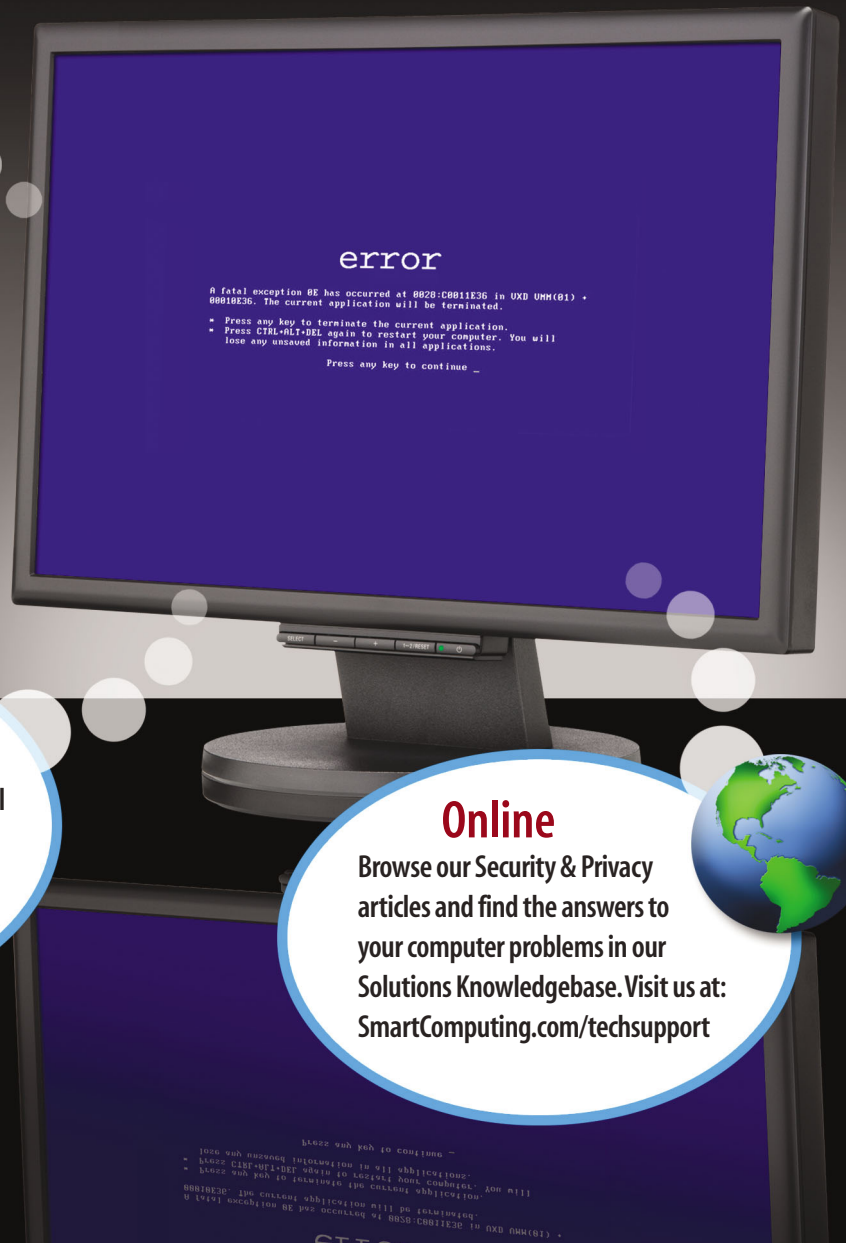
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